CASE 1: Luigi: First Episode Psychosis, Australia

Country of Origin: Australia
Authors: David Copolov, Dorothy Carter, Simon Howard, Richard Knafel

Identifying Data
Luigi is a 26 year-old single unemployed butcher who lives with his parents. He was referred by his local medical officer for outpatient assessment, which led to a decision for admission to the First Admission Ward.

Presenting Complaint
His family requested treatment because of unmanageable and violent behavior, which persisted for approximately three months prior to admission.

History of Present Illness
Luigi's family describes a change in his personality that began approximately two years prior to admission. The onset of these problems coincided with the closure of his butcher shop because of financial difficulties. At this time he became quite moody, to the extent of sometimes showing marked mood swings. During the past two years there were occasional episodes of verbal abuse and threats of physical violence towards his family and friends. When he became agitated, his speech was also sometimes difficult to understand.

Prior to this time, Luigi had been smoking marijuana regularly. His marijuana use has been going on for approximately four years and has involved smoking marijuana daily with a small circle of friends. After the closure of his butcher shop, however, his drug use intensified, and he also began to use amphetamines and LSD intermittently.

His condition markedly worsened approximately four to six weeks prior to admission. At this time, Luigi's family noted an escalation of his problems with mood swings. He became increasingly agitated, and he also became verbally abusive to his brother and his friends, even threatening to kill them. He also became suspicious, believing his family and friends were trying to harm him, and that he was being spied on by the television and radio. His family believes that his drug use intensified even more during this time period.

His situation became completely unmanageable three days prior to admission. During a period of agitation Luigi became not only verbally abusive, but also physically violent. He destroyed furniture and fixtures in his family's garden, kicked in the television set, kicked his neighbor's dog, and smashed the neighbor's car lights.

Mental Status
Luigi was a casually dressed overweight young man. He was agitated and physically threatening, beating his chest and head violently. His affect was labile, but mostly elevated and angry, with occasional episodes of tearfulness. His speech was pressured and showed marked formal thought disorder to the point of near incoherence. He described persecutory delusions, such as the belief that his friends were sexually abusing him, trying to kill him, and stealing his marijuana. He felt that his family was trying to harm him and that his room in his home was bugged. He had ideas of reference regarding...
the television, radio, and aerials. He also described a belief that his thoughts were controlled by an outside force and admitted to both thought broadcasting and thought insertion. He described auditory hallucinations, which included voices calling out his name and making abusive remarks. He also described visual hallucinations of spiders and snakes, as well as tactile hallucinations consisting of pin pricks on his hands. He showed no insight concerning the nature of his problem.

Family and Social History

There is no family history of psychiatric illness.

Luigi's father is 63 and is retired, while his mother is 60. Both were born in Sicily. The family has lived in Australia for the past 30 years. Luigi has one brother, Santo, who is an electrician and who also lives at home. According to Santo, both parents are generous, kind, and loving. There have been no significant family problems.

The parents describe Luigi as a pleasant child. He was a follower rather than a leader and had many friends. He was an average student at primary and secondary school and had no particular problems as a teenager. He occasionally made threats of violence to get his own way, but he never carried these out. He left school at age 15 and was soon after apprenticed to a butcher. He completed his apprenticeship and worked in the same business for three years. He then opened his own butcher shop with his father's assistance. This was never a success, and it closed down two years ago, leaving Luigi $10,000 in debt. His father covered this debt. Since that time, Luigi has had brief jobs as a butcher in various markets, but his jobs have consistently been terminated after arguments with employers.

Luigi has had two girlfriends. His relationship with Barbara lasted three years and started in secondary school. The relationship with the second girlfriend, Mary, also lasted for three years and began when they were working together in a butcher shop. He currently does not have a girlfriend.

Medical History

At the time of birth a fleshy lump was noted on Luigi's head. This was operated on at a Children's Hospital, and the investigation revealed a capillary menigioma with arteries penetrating his skull; these were later ligated. The possibility of Sturge Weber syndrome was raised, but was thought to be unlikely.

Luigi was in a motor car accident six years ago, in which he sustained a fractured femur and a minor closed head injury, which was not associated with loss of consciousness.

He has no known current medical problems.

Hospital Course and Treatment History

Luigi was admitted to a locked ward as an involuntary patient. Laboratory tests on admission included a full blood examination, erythrocyte sedimentation rate, rapid plasma reagin, thyroid function tests, liver function tests, calcium phosphate, creatinine, urea, and electrolytes, and random blood glucose; these were all normal. A brain CT and EEG were also normal.

He was commenced on chlorpromazine and diazepam. The doses of these drugs were increased gradually over several weeks to one gram and 60 mg per day respectively. Luigi showed very little response to these medications. He remained agitated, threatening, and floridly psychotic with labile affect, requiring frequent seclusion and intramuscular sedation. After approximately two weeks, the agitation began to diminish, but he continued to report troubling delusions and hallucinations, and to be sufficiently agitated to require seclusion on at least a daily basis.

Because of his fluctuations in mood and other affective components of his mental status (e.g., pressured speech), it was decided to commence lithium carbonate. A serum level of 0.8 mM/L was achieved on 500 mg B.I.D. After two weeks on this regimen, Luigi's behavior began to improve, and he was transferred to an open ward. He still remained relatively agitated, with occasional outbursts of aggression and prominent psychotic symptoms, however, and therefore his lithium was increased to 1250 mg per day. Concomitantly, his chlorpromazine was decreased to 800 mg per day and clonazepam (to which he had been switched) decreased to 6 mg per day. This treatment continued for another four weeks and led to a gradual resolution of his symptoms. Only one exacerbation of psychosis occurred during this time period; it appears to have been precipitated by an elopement from the hospital, during which he used marijuana, after which he again became floridly psychotic. As his symptoms improved, his chlorpromazine was gradually decreased to 600 mg per day and the clonazepam was gradually decreased and eventually discontinued.

The pharmacological therapy was supplemented with treatment in a day program, involving counseling and rehabilitative therapy. His problems with drug abuse were discussed, and he gradually
developed some insight about their possible role as a precipitant of his psychotic symptoms. His family was also supported with weekly family therapy sessions.

By the time of discharge, Luigi had apparently returned to his normal level of functioning. He was insightful about his illness, and he was motivated to comply with medication, to continue to participate in an outpatient day program, and to abstain from recreational drugs.

**Long-Term Treatment Plan**

Luigi will be maintained on his current medications and receive counseling on a regular basis for three to six months, at which point an effort will be made to taper his neuroleptics further. Counseling will focus on helping him find a circle of friends not oriented toward drug use, insuring that he avoids the use of marijuana and other drugs of abuse, and assisting him in finding permanent employment. Long-term prognosis is expected to be relatively good.

**Differential Diagnosis**

The most likely diagnosis for his recent acute problems is drug-induced psychotic disorder. Favoring this diagnosis is the fact that his symptoms appear to have been exacerbated by increasing drug use, as well as the episode of relapse apparently precipitated by marijuana use during his elopement.

Other diagnoses that should be considered include schizophreniform disorder and bipolar disorder.

**Editorial Comment**

This case illustrates that acute severe psychotic syndromes, which are classically characterized by Schneiderian First Rank Symptoms, such as thought broadcasting and thought echo, may possibly be drug-induced and may have an excellent outcome. The case also illustrates that drugs of abuse do not necessarily have a single typical effect on mental status; while marijuana abuse typically produces lethargy and withdrawal, the symptoms that it triggered in Luigi's case were more often agitation and psychosis. This case also illustrates the difficulty in distinguishing between classical syndromes within the schizophrenia spectrum versus syndromes within the affective spectrum. Luigi's First Rank Symptoms are more consistent with schizophrenia, but other components of his clinical presentation show prominent signs of a primary mood disturbance. Whatever his diagnosis, his symptoms responded much better to lithium than to classical antipsychotics.

Finally, the case also illustrates the importance of maintaining contacts with a supportive family and enlisting their help in a treatment program.

**CASE 2 : SB: Childhood Onset Schizophrenia**

**Country of Origin:** Japan  
**Author:** Yoshibumi Nakane

**Identifying Data**

SB is a 14 year-old girl who was brought to the hospital for admission at her mother’s request. She has been a junior high school student in Nagasaki.

**Presenting Complaint**

Her mother described abnormal behavior, which included crying without any apparent reason and suddenly stopping walking or talking.

**History of Present Illness**

Although SB had some indications of psychological and emotional difficulty at an earlier time, her prominent symptoms began in September of 1989, when her mother was hospitalized for one month and operated on for a goiter. SB's parents were separated (and officially divorced in December of 1989), and so SB remained at home with her older sister. Although her grandparents live nearby, the children did not have any direct supervision, nor anyone to prepare meals for them. SB began to keep irregular hours, staying up until very late at night and staying in bed until afternoon. She also stopped going to school. Two months later after her mother had returned home, she began to be seclusive and suspicious. She retreated to her room often and remained there; she also reported to her mother that, "I'm being watched by someone." Around this time her paternal grandmother died. At the funeral SB
said to her mother "I am sorry. It's my fault that you died." Her mother also reports that she began to laugh inappropriately.

In the beginning of February, 1990, her condition worsened. She began to speak incoherently and also to have trouble sleeping. She began crying without apparent reason and to show the abnormal motor behavior described by her mother at the time of admission. (I.e., suddenly stopping her activities, such as talking or walking.)

**Mental Status**

SB was neatly dressed, but appeared seclusive and suspicious. Her affect was inappropriate, with occasional episodes of silly laughter. Her stream of thought and speech was somewhat disorganized, with periods of silence interspersed with an occasional rather disorganized monologue. She described delusions of persecution and hypochondriasis, saying, "I will be injected with a narcotic drug. I have a breast cancer, so I will die soon." She also described hallucinations, which included a voice saying, "kill yourself."

**Family and Social History**

SB has a prominent family history of mental illness. Her mother was once in the hospital for a diagnosis of schizophrenia at age 20; the mother is described at that time as having displayed hallucinations, paranoia, and thought incoherence for three months. SB's maternal grandfather has been diagnosed as being dependent on alcohol, and her maternal aunt has been diagnosed as having affective disorder. SB's sister has also received psychiatric treatment; in May of 1989 she was taken to a general hospital because she was suddenly unable to stand up, was referred to a psychiatrist, but eventually became noncompliant with treatment, complaining of strong effects of prescribed medication.

SB's father is a merchant sailor, importing and selling goods from abroad. SB was born as the second of two siblings in a suburb of Nagasaki City in August, 1975. The relationship between her parents was not good, because her father did not give her mother enough money for family living expenses and also ran up a lot of debts. The parents were eventually separated and divorced in December of 1989.

SB showed normal physical growth, but is described as having been nervous and prone to worry about trivial matters and other people since early childhood. Her early education was somewhat disrupted due to family moves. She began school in Nagasaki City in 1982, was transferred to Yokohama because of her father's job one year later, and returned to Nagasaki City for junior high school. The return to Nagasaki City was precipitated in part because of difficulties on the part of her sister, who left home to live in her maternal grandparents' house in Nagasaki because she did not like her father and could not live with him.

SB showed some trouble adapting to the move in junior high school, but eventually made friends and seemed to enjoy her school life. Her academic record was not good, however. The family also had substantial financial difficulty and has had to live on national financial assistance, due to paternal nonsupport and the mother's poor health.

**Medical History**

SB had normal birth and milestones. She has no known physical illnesses.

**Hospital Course and Treatment History**

The patient was brought to the hospital by ambulance on February 6. Her initial treatment consisted of haloperidol in a dose of 4 mg per day. By the end of February her behavior had improved and her mood had brightened, with a general increase in overall coherence and appropriateness. Her symptoms tended to fluctuate over the next few months, however, and her dose of haldol was varied in response to her target symptoms, achieving its highest dose of 39 mg per day. On occasion she would appear improved and say, "I am all right now. I want to leave the hospital." On other occasions, she would refuse to take her medication saying, "this is a poison." Sometimes her behavior appeared to be manipulative and attention getting, such as falling suddenly for no apparent reason. At times she became unstable and moody, complaining of being in the hospital and hitting people around her when she was not pleased with things.

Her treatment with medication was accompanied with psychotherapy. In her psychotherapy session she talked about the experiences which bothered her psychologically, such as transferring schools, her parents' divorce, her mother's hospitalization, and her grandmother's death.
By the end of July, she was sufficiently improved to go home on an overnight pass. The dosage of haloperidol was decreased to 18 mg per day. By the end of August, she was able to leave the hospital and to receive treatment in an outpatient clinic. She returned to junior high school and was able to finish the year. She is currently receiving treatment through a sheltered workshop run by a family group under the supervision of a psychiatric hospital near her home.

**Differential Diagnosis**

Based on her family history of schizophrenia, her early prodromal symptoms, her prominent positive symptoms such as hallucinations and delusions, her disorganized behavior, and her inappropriate affect, the most likely diagnosis is schizophrenia. Other diagnostic possibilities include a stress-induced psychotic disorder or a psychotic mood disorder.

**Editorial Comment**

This case illustrates the difficulty of evaluating the symptoms of psychosis in children, particularly when they occur within the context of stressful life events and a chaotic family environment. In such situations, the diagnosis of schizophrenia should probably be applied with caution, and the subsequent course and outcome will provide considerable assistance in making a definitive diagnosis. This young girl's illness has many features that are bad prognostic indicators, such as displaying inappropriate affect and prominent delusions and hallucinations at a relatively early age. On the other hand, she also experienced a variety of prominent stressors that would be expected to be quite troubling to a young teenager, such as a subjective experience of abandonment by both her mother and father, her sister's illness, and her grandmother's death. Thus reactive elements could play a prominent role, and in this situation prognosis is likely to be much better. A final issue involves role modeling, since both her mother and her sister had previously displayed abnormalities in behavior that led to psychiatric treatment. Therefore, it is still premature either to discuss definitive diagnosis or to make definitive predictions about outcome at this time. The relatively high doses of antipsychotics appear to have been helpful to her, as has the supportive therapy, since she has been socially well-adjusted since discharge and has succeeded in graduating from junior high school.

**CASE 3: Erik: Schizotypal Disorder and Long-Term Psychotherapy**

Country of Origin: Scandinavia  
Author: Anonymous

**Identifying Data**

The patient is a 21 year old male biology student in a pre-medical program. He was initially seen because of parental concerns, evaluated by his family doctor, and referred for outpatient psychiatric treatment.

**Presenting Complaint**

Repetitive fantasies, social withdrawal.

**History of Present Illness**

While taking a course in human anatomy, Erik began to feel more and more uneasy, especially during the dissection sessions. He felt frightened by the close contact with the human body parts he had to dissect. He could not express in language what bothered him. Finally, he phased out of the university. When he left secondary school 1-1/2 years earlier, he lost contact with his classmates. He spent most of the time at home. Sometimes he went by train to the center of the city and walked around. At home he listened to classical music. Once in a while his father gave him money to buy a ticket for a live classical concert. He describes this as his "absolutely best experience" during recent years.

Eventually he began to have repetitive fantasies, which occurred while he was standing on a train riding to and from the city. He imagined that a male monkey suddenly jumped on his back from somewhere behind him. The monkey did not do anything, but it was a frightening experience. He could not explain why. He became increasingly withdrawn and asocial. His parents became more and more worried by his passivity, and they decided he needed medical assistance.

Erik was seen by his family doctor, who referred him to the outpatient clinic of a university hospital. He was evaluated initially by a female psychiatrist who saw him for several sessions. She concluded that he displayed a decreased capacity for emotional contact with other people and referred
him for psychological testing. A Rorschach test indicated isolated instances of formal thought disorder, as well as uncontrolled and primitive sexual and aggressive fantasies. He was then referred for long-term psychotherapy with a psychiatrist who had a special interest in schizophrenia and its borderline conditions.

**Mental Status**

Erik presented as a tall good-looking young man. Although he seemed shy and slightly aloof, his affect was only minimally blunted. He was able to smile spontaneously when prompted. He seemed anxious and intense at times. His mood was neutral. He displayed a striking and marked inability to express emotions or think introspectively. Apart from his recurrent fantasies and preoccupations with sexual themes, he did not display any indications of delusions or hallucinations. None of his thinking was clearly delusional, although he did have occasional ideas of reference.

**Family and Social History**

There is no definite family history of mental illness. His mother is described as "sensitive" and a "worrier." His father is somewhat detached and perhaps even schizoid, but otherwise healthy and energetic.

His father is a teacher. His parents live in a comfortable environment, owning their own home with a garden in a nice suburban area. His mother also has a job outside the home. His father graduated from law school, but never practiced. He preferred studying.

According to his parents, Erik developed normally. Everyone expected him to have a good future. He did well in school and appeared to be normal in social situations. He was not actively outgoing, but did have some close friends. He spent most of his spare time reading and listening to music, and he showed some moderate interest in social activities. In late adolescence he did not start dating behavior to the extent that his classmates did, but this did not particularly worry his parents.

He began university studies 2-1/2 years prior to initial psychiatric evaluation. He finished the first year with very good marks. During the second year he began his course in human anatomy, including the dissection laboratory. He could not cope with this course and did not do any work for a year. He continued to live with his parents and spent a great deal of time in his own room. He had no source of income and was dependent on his parents for money. He perceives them as being "on the stingy side." He had to ask them for money in order to cover all of his expenses outside the home.

He has one sister, who seems to have a normal adjustment. She is a pharmacist and is happily married. She lives in another part of the country.

**Medical History**

Birth and early development were normal. The patient has never suffered any serious illnesses.

**Hospital Course and Treatment History**

Erik came for therapy twice weekly during the first six months. During the following five months the therapy was gradually reduced in frequency. The method of therapy was supportive and did not involve interpretation in the psychoanalytic sense.

One aspect of the therapy involved the patient's relationship with his family. During the course of therapy, the therapist had only one visit by Erik's father and one telephone conversation with his sister. The father complained about Erik's negativism: when the parents suggested entertainment, which Erik enjoyed before he became ill, he accepted it, but refused to participate when it was time to leave. He spent days lying in his room staring at the ceiling. When the therapist confronted Erik with this complaint, he (intensely prompted) came out with the following:

> It was correct that the father some weeks ago asked Erik if he would like to join his parents and go to the theater. He accepted, and he certainly understood the good intentions of his parents. The invitation occurred two weeks before the actual performance, and he decided not to go when the day arrived. This was a result of a chain of speculations over several days. The essence of these speculations was a fear that he would be "suspected" by the people who would sit in the row behind him in the theater. He did not know who they would be. He imagined, however, that an intended movement of his left arm would be interpreted by the people behind him as a sexually intended move by him toward his mother. (In his imagination his mother would be sitting

6
next to him on his left side.) He could not get these fantasies out of his mind, and the solution was to avoid the situation by staying home.

Erik's sister called the therapist because the parents were distressed by the patient's refusal, which they could not understand. The therapist did not explain the patient's reasons, since the therapeutic relationship was confidential, but he did advise the sister to follow a new strategy the next time the situation arose: they should select another play, which would have attracted the patient earlier. Two hours before the performance began, they should tell the patient—as if it was a given thing—that "now you get up and get dressed properly for we are all going to the theater NOW!" This strategy was successful.

Not only did dealing with the patient's ambivalence toward his parents and everyday activities become a focus of therapy, but it was also necessary to deal with this trait in relation to work. It became clear very quickly that Erik was in great need of having his everyday life structured: i.e., to have a regular job, and to earn his own money. The therapist advised him about how young students could get jobs—where to go and what to say. At every session the therapist asked Erik how his job hunting went. For the first four times, Erik reported that he had planned to visit the relevant employment office, but that it had never happened. On the fifth occasion, when the therapist asked him to explain why he did not take action and go to the employment office, Erik suddenly answered very emotionally:

Why don't you just tell me right away to hurry up and do it?

The therapist responded by telling the patient with a raised voice:

I'll tell you frankly, that if you haven't done anything before your next session with me, that will be your last session.

At the next session, Erik came and told the therapist that he had gotten himself a good job and had not had any problems in doing so. He would have to travel a great deal with another student and another supervisor in order to control the physical state of road signs.

Therapy now focused on the topic of Erik's professional future. His mental condition improved a great deal as a consequence of his new job. It was a relief not to have to visit the relevant employment office, but that it had never happened. On the fifth occasion, when the therapist asked him to explain why he did not take action and go to the employment office, Erik suddenly answered very emotionally:

You better write and send your application today, because I will not be able to come up with a better suggestion than this.

And so Erik did apply.

Not all aspects of the therapy were so idyllic, however. Erik's sleep was interrupted by disturbing nightmares. He was also bothered by compulsive thoughts. He continuously speculated about why men and women became attracted to each other. He knew that young people were usually deeply interested in sex. He himself had no idea, however, about what this attraction meant. He had read about sexuality, but it did not have any meaning for him. He had never experienced any sexual feeling or desire. The therapist understood this frequently recurrent topic as an expression of anhedonia: i.e., a lack of zest or verve, seemingly a lack of any wish or satisfaction or joy which required active personal participation.

The patient began his studio technician training after approximately seven months of therapeutic contact. Erik found the experience stressful, but he also found it enjoyable. He was bothered by having to adapt to fast instructions, to crowded rooms, and to all kinds of dubious jokes. On the other hand, he particularly enjoyed being involved with broadcasting classical music. His interpersonal relationships within this job eventually led to an increasing personal crisis. He became spiritually attracted to a man who was 20 years older than he, and who was a highly gifted and interesting editor of cultural programs. They went out to have a few beers together once in a while. The therapist got the impression that the older man might be homosexual, but not seductive. This experience eventually became overstimulating for Erik, who panicked and began calling the therapist in despair at odd times of the day.

The patient was then prescribed perphenazine, 4 to 8 mg per day as needed. This small dose of medication appeared to have helped Erik substantially. Contact with the therapist gradually diminished.
The patient used the perphenazine as needed, and apparently only to a limited extent. A prescription for 100 four mg tablets lasted approximately one year.

One and one-half years after Erik began his studio technician work, he was drafted for compulsory military service. He begged the therapist to provide a written statement which would exempt him from service. The therapist refused, believing that 18 months in the Army would give Erik a chance to further improve his social adjustment. This appears to have happened. Because of his professional status, Erik was assigned to a radio communication regiment. He found the work interesting and managed to complete his military commitment successfully. He then became regularly employed in the broadcast system. Not many years later he was so "normal" that his colleagues elected him as their representative. It is perhaps noteworthy that he did not consult his therapist about this. Erik continued in this work for many years. Eventually, he got into difficult and conflicting situations in his role as union representative. He consulted his therapist, who advised him not to stand for reelection after three years, and he followed this advice. Periodically his beer consumption rose considerably during those three years, but he never became addicted. He occasionally called the therapist and asked him to provide a medical testimony which would give him a disability pension. The therapist refused and did not hear from him further for the next 15 years.

After this 15-year break Erik sent the therapist two subsequent letters. In the first letter he described how he felt he had to change psychiatrists. He got himself admitted to a neurosis sanitarium, where he was examined and found eligible for a disability pension. In this letter, Erik also described how he had always wanted to study data science at the university and that he was about to begin this task. In a second letter, which came one year later, he indicated that data science had not turned out to be the right thing for him, but he did enjoy receiving his pension, and he was using his free time to do secretarial work for an association of sado-masochists. He enclosed a brochure and suggested that the therapist attend a meeting of the association in order to learn how interesting it was. Erik emphasized that he never took any part in the sexual practices.

Differential Diagnosis

If schizophrenia is conceptualized as a disorder characterized by prominent psychotic symptoms, this patient cannot receive a diagnosis of schizophrenia. The case clearly indicates a diagnosis that was once referred to as "schizophrenic borderline condition." This type of person is now classified as schizotypal personality or schizotypal disorder in the DSM or ICD nomenclature. It is striking that the patient, although of normal to high intelligence, is nearly completely incapacitated by his symptoms, in spite of the fact that these symptoms are "mild" in comparison with more florid psychotic symptoms. In many respects, Erik is much more seriously ill than Luigi, who is described in case history number one.

Editorial Comment

This case history illustrates several important points about schizophrenia spectrum conditions:

1) The severity of the case places it diagnostically in the borderline between DSM-IV schizotypal personality disorder and DSM-IV schizophrenia. ICD places such conditions within schizophrenia and refers to them as schizotypal disorder.

2) The case illustrates the utility of initiating medication with neuroleptics in small doses. This particular patient appears to have been helped substantially by relatively modest doses. Beginning with such small doses is an effective way to avoid extrapyramidal side effects and consequently to achieve compliance.

3) The case also illustrates the essence of the supportive approach in the treatment of schizophrenic patients. Essentially, the therapist acts as the superego of the patient, which is out of order due to ambivalence.

4) Erik manifests several important features of schizophrenia, which are frequently not discussed in some present clinical teaching: ambivalence and anhedonia. Ambivalence is a very important aspect of schizophrenia, especially in the initial phases. It is unfortunately deemphasized in both the DSM and ICD nomenclature. Both are among the famous "four A's" of Bleuler: autism, ambivalence, associations, and affective blunting. The patient's ambivalence is accompanied by anhedonia, or pervasive loss of the ability to experience pleasure. This loss is another important core feature of schizophrenia.

CASE 4: John: Gradual Onset of Good Prognosis Psychosis
Country of Origin: USA
Identifying Data
The patient is a 30 year-old male businessman referred for psychiatric treatment at the request of his parents and wife.

Presenting Complaint
The patient's family has become concerned because he believes he is Christ. The patient, John, initially denied having any problems at all.

History of Present Illness
John married Mary approximately three years ago, after a two-year courtship. Mary was a devout Catholic, while John came from a background that de-emphasized religious interests. Marriage to Mary was dependent on conversion to Roman Catholicism, and John found himself becoming increasingly interested and involved with his religious training. He went to church regularly, and began to study religious literature and to read the Bible. Over time this religious interest became more and more intense and finally led to a significant commitment of time and effort to the question of dating the birth of Christ. About two years after his marriage, John began to place the birth of Christ later and later in time. Within another six months, he began to suspect that he himself was Christ. At this point his parents and wife sought hospitalization for the patient.

Mental Status
The patient was a tall, well-groomed, nicely dressed man who looked slightly older than his stated age. His mood was neutral and his affect appropriate. His speech was logical and goal oriented. He denied hallucinations and all delusions apart from his relatively circumscribed religious delusion. He displayed no insight into the possibility that he might be ill.

Family and Social History
There is no family history of psychiatric illness.

The patient is from a middle-class background. His father and uncle have owned and operated a large and successful furniture business, in which John has also taken an active role. His birth and early development were completely normal. He was a good student throughout grade school, junior high, and high school. He participated actively in a variety of activities, including the basketball team and the school band, in which he played the saxophone. He was popular with peers and had an outgoing and sociable personality. He attended a major eastern business school and graduated with honors. Thereafter, he began to work in the family business, where he was well-liked and able to assume increasing responsibility.

Medical History
Birth and development were normal. He has no significant medical history.

Hospital Course and Treatment History
The patient came into the hospital for evaluation but refused to take any medication. During the next six weeks he cooperated with the assessment process, but in a fashion that would suggest that he had no insight into his need for help. He could be described as passively cooperative, but uninvolved with the evaluation process.

At the end of six weeks, he demanded to be released so that he could continue to resolve the question of whether or not he was Christ. He indicated that he was not certain, but felt relatively sure that he was the Christ. His wife expressed extreme distress over his decision to leave the hospital, but indicated that she would support him in it and that they would return home together. The patient later stated that it was clear to him that either his wife genuinely believed he was ill or that she was part of a plot to incorrectly convince him that he was ill. He stated that he could not believe that his wife was part of the plot, and at this point he began to question his beliefs and to recognize that there might be something wrong with him.

Thereafter, the patient agreed to undertake a course of neuroleptic treatment. He received oral haloperidol in a dose that was gradually increased to 20 mg per day. His religious preoccupations cleared over the next six weeks, and he returned to a state that was quite similar to his premorbid
personality. His interest in religion was replaced by an interest in business events, and he began to express a desire to return to work in the family furniture business.

John was subsequently discharged from the hospital to return to his home community. Follow-up over the next six years indicated that his condition stabilized. He remained on low dose neuroleptic medication for approximately 2-1/2 years. Thereafter, it was slowly tapered. As of last follow-up he continued to have no recurrence of his previous symptoms, despite being off medication for 3-1/2 years. He continued to attend church regularly, but displayed only a moderate interest in religious topics.

Differential Diagnosis
The most likely diagnosis for John is delusional disorder. Features suggesting this diagnosis include preservation of affect and personality, as well as the overall intact level of functioning prior to onset and after offset. Delusional disorder typically has a much better prognosis than other psychotic disorders, particularly when delusions are very circumscribed, as was the case with John. Other diagnoses that might be considered include manic disorder and schizophrenia. The former is unlikely in view of the absence of prominent symptoms of mood disorder, however, while the latter is unlikely because of the absence of any other characteristic symptoms of schizophrenia, such as hallucinations, bizarre delusions, or affective blunting.

Editorial Comment
Delusional disorder is not particularly common, and few clinicians have extensive experience with large numbers of cases. The relatively slow onset of symptoms, as well as the relatively late age of onset, is somewhat characteristic, while the clear offset is less characteristic. Many patients with delusional disorder remain at least mildly delusional, but appear completely intact unless one wanders into their very circumscribed area of delusional beliefs.

Even a patient with an excellent outcome, such as John, may display a relapse at some time in the future, and so the prognosis should be viewed with cautious optimism.

CASE 5: Marisa: Mild Chronic Symptoms with Acute Exacerbation
Country of Origin: Italy
Author: Carlo Cazzullo

Identifying Data
The patient, Marisa, is a 21 year-old woman who was brought to the psychiatric emergency unit by stretcher carriers and Carabinieri (members of the Italian National Police Force), who picked her up at the local fire department after receiving an emergency call from the firemen.

Presenting Complaint
Marisa, a slender, attractive, dark haired young woman, physically attacked the firemen with a hammer. She is agitated and upset, but denies having any problems.

History of Present Illness
Marisa led a relatively secluded life, growing up as the only child in a prominent artistic family. After an academically brilliant high school career, Marisa decided to focus on her piano lessons and to take classes at the Conservatory as a private student. Except for attending her regular tutorial classes at the Conservatory, Marisa remained home and practiced her piano all day. Apart from her parents, Marisa had no social contacts and no interests in relating to anyone her own age. Her parents were unconcerned about this, feeling very supportive of her intense interest in her musical career.

Marisa's house was near the local fire station, where almost every fireman is voluntarily enrolled. Marisa began to believe that the firemen were somehow affecting her ability to play the piano. When she made mistakes while performing, she believed that this was a consequence of some activity at the nearby fire station. She began to complain to her parents that she could no longer go outside, because she has become the butt of the firemen's jokes. She believed they were making fun of her and that they organized their entire daily activity in order to bother her in some way. Unable to stand it anymore, she began to put forward oral complaints to the fire brigade officers. These were ignored, and so she began to submit written complaints. She did not receive any response, and so she contacted the local police department. They also do not respond.
Unable to stand the situation any longer, Marisa formulated a plan to put a stop to the persecution that she was experiencing. She marched into the fire station brandishing a hammer and attempted to "break the alarm." A lively struggle ensued. Marisa had at last succeeded in capturing the attention of the head of the fire department and police. The latter picked her up, placed her in restraints, and took her to the psychiatric emergency unit.

**Mental Status**
Marisa is an attractive, slender woman who looks younger than her stated age and is really quite strikingly beautiful. She is angry and upset about the mistreatment she has received, first at the hands of the firemen, subsequently at the hands of the police, and most recently at the hands of the stretcher carriers who have restrained her and brought her in. She appears somewhat bewildered and confused, however, and is oriented to person, but not to place and time, believing that she has now been transported to a torture chamber rather than a psychiatric hospital. She pours out a torrent of complaints about the injuries that she has experienced from the firemen, including sexual innuendoes, indecent jokes, and attempts to control her mind and behavior. She reports that, while practicing, she has been automatically forced to make wrong movements with her hands and fingers and that she has also experienced hearing obscene whispers that have been put in her mind through someone at the fire station. Her affect is not blunted, but rather is intense.

**Family and Social History**
There is no known family history of overt psychiatric illness, but both her parents are somewhat eccentric. Her father is an esteemed sacred art sculptor, while her mother is an expert in classical music who decided to give up her profession in order to completely devote herself to her daughter.

Marisa was brought up in a milieu where she received strong cultural incentives to be involved in interests that were "intellectual," "artistic," and "mature." Throughout her childhood and adolescence she had very little interaction with individuals her own age. She did not participate in any games or leisure or social activities. She simply attended school and returned home to practice her music or to read books. She performed brilliantly in her academic endeavors, however. On the other hand, neither she nor her parents were able to identify any close friendship with other girls or with boys. The only relationship with a member of the opposite sex that they were able to recall involved a short-lived beach date with a boy when she was in her teens. Her mother reported that that boy "touched her," and Marisa appeared to have been somewhat worried and preoccupied about this for several months thereafter.

**Medical History**
Birth and development were normal. Marisa passed through developmental milestones at a normal to rapid rate. She has no history of medical illness of any type.

**Hospital Course and Treatment History**
Marisa was admitted to the inpatient emergency service, where she was treated with neuroleptic medication. She received oral haloperidol in a dose that was rapidly titrated up to 15 mg per day. Her anger and agitation quickly diminished, but she continued to express a preoccupation with the firemen. She was also treated with supportive psychotherapy, in which her delusional themes were explored; this treatment met with extensive resistance to the possibility that "maybe those firemen interested her a little too much." Efforts to enlist her parents in family therapy and to explore the possibility of establishing more normal relationships with peers also met with resistance. Consequently, Marisa was discharged on low dose neuroleptics to return to her "homebound institutionalization," with little improvement in her delusional system.

**Differential Diagnosis**
The most likely diagnosis is schizophrenia, paranoid type. Evidence supporting this diagnosis includes the insidious onset, chronic course, and poor response to neuroleptic treatment. The diagnosis is confounded, however, by the abnormal milieu in which she has grown up, which borders on a "folie a trois." A second diagnosis that should be considered is delusional disorder. Her relatively intact affect and conceptual structure favor this diagnosis, but her asociality and chronic course argue against it.

**Editorial Comment**
In some respects, this case illustrates a classic picture of schizophrenia with insidious onset, marked by social isolation, restricted range of interests, and the gradual development of a delusional system that finally explodes into a psychotic outburst. It also illustrates, however, the fact that nearly every patient must be understood within a personal, social, and family context. No one can ever be certain whether Marisa would have had a different life history and psychiatric history if her father had been a fireman and her mother a singer at a local bar.

CASE 6: Yuri: Striking Deterioration from Previously High Functioning
Country of Origin: Australia
Authors: David Copolov, Dorothy Carter, Simon Howard, Richard Knafel

Identifying Data
Yuri is a 28 year-old single man, formerly a Ph.D. student in mathematics, who is unemployed and lives with his parents and younger siblings.

Presenting Complaint
Yuri was brought in after being picked up by the police, because he was attempting suicide by walking in front of cars.

History of Present Illness
This is Yuri's second admission. It occurs five months after discharge from the First Admission Ward, where he had been treated for a schizophreniform psychosis. His predominant symptoms during that admission were hallucinations, accompanied by some depressive symptoms.

Yuri was discharged from that admission on trifluoperazine, 5 mg bid and diazepam 5 mg at bedtime, with fortnightly follow-ups in an outpatient psychiatric clinic. He stopped both the medication and the visits two months before admission. His resistance to treatment arose because he was reluctant to divulge his ongoing and persistent symptoms, because of fear that the trifluoperazine would be increased. He had experienced symptoms of akathisia and was quite distressed by these symptoms. His auditory hallucinations, which had improved somewhat during hospitalization, had reappeared one week after discharge. He coped reasonably well with them, since they tended to occur primarily when he was at home in the evening rather than while he was at work. He had been living with his family, having abandoned hopes of completing his Ph.D. Completely off medication, no longer receiving psychotherapy, and experiencing troubling hallucinations, he battled with an intermittently depressed mood. Former plans and hopes seemed to have slipped through his fingers. He nevertheless tried to maintain a hopeful attitude toward life. About a week prior to admission, however, he learned that one of his very old friends had committed suicide. He then became intensely distressed, tearful, and unable to sleep. His hallucinations, which had been present on a daily basis, became more frequent, and also began to assume a menacing and troubling quality. They repeatedly made derogatory remarks and also began to tell him to kill himself. He also began to experience ideas of reference from the television and radio and delusions of a persecutory nature. His appetite worsened, and he began to drink half a bottle of gin per day, feeling this was the only way that he could cope. This self-prescribed treatment was an inadequate replacement for his neuroleptics, however, and his suicidal ideation steadily worsened. Finally he gave in to the ideas and the hallucinatory commands, went outside, and attempted to kill himself by walking in front of cars speeding along the highway.

This admission occurs in the context of a relatively longstanding prior history of psychiatric symptoms. Yuri has experienced a long history of hallucinatory phenomena, predominantly visual, beginning when he was approximately fourteen. These early hallucinations took the form of seeing things in geometric fragments: it often looked as if a web had been thrown over everything, with beads of pearls joining the sections. During his first year of university these hallucinations intensified. In addition, colors changed and became more intense.

During his first year of university, Yuri suffered an episode of severe depression. This diagnosis is made only in retrospect, since it passed unrecognized and was not treated. Nevertheless, he describes relatively classic symptoms of loss of interest, sadness, insomnia, and poor appetite. He failed all his subjects that year and had to repeat his work. He apparently recovered fully and was able to get good to excellent grades in the subsequent years (all A’s) and to graduate with distinction. He then enrolled for a Ph.D. degree and was doing well in it until the onset of his first episode of a severe psychotic disorder, which led to his admission approximately six months ago. That admission lasted for
two months. He presented with a four to six month history of auditory hallucinations, which were derogatory and nearly continuous. He had associated persecutory beliefs about the neighbors disliking him and plotting to use a device to plant hallucinations in his head. He had suicidal thoughts, but had made no attempts. A diagnosis of schizophreniform psychosis was made, and he was treated with haloperidol in doses from 10 to 15 mg per day. He developed severe akathisia, and so the medication was replaced with pimozide, which also produced severe akathisia. Eventually he was stabilized on trifluoperazine 5 mg bid and diazepam 5 mg hs. He appeared to be doing well at the time of discharge.

Mental Status (as manifested three weeks after readmission)
Yuri was a very slender young man who was dressed in dark trousers and a tight-fitting shirt that was too small for him, making him look even smaller. He had long blond hair (uncombed), and dirty, chipped glasses that were held together with a pin and masking tape. He carried a small computer in his pocket and often pulled it out nervously in order to record dates or do calculations. His affect was blunted, but also showed some appropriate reactivity in the form of smiling. His mood was mildly sad, and he was able to recall feeling markedly depressed at the time of his suicide attempt. He denied suicidal ideation and indicated that his auditory hallucinations were no longer derogatory or directive of suicidal behavior. When asked to describe his current auditory hallucinations, Yuri said that he enjoyed them and found them "magical; they say interesting things." He also claimed to be a "magician and healer of the universe." His thought and speech displayed periods of normal stream and form, but these periods were interspersed frequently with long pauses during which he would stare blankly for up to half a minute. He would often forget the question asked. He stated that he had thoughts on a "different level" during these times. He expressed the complaint that his medication made him feel restless. A pillrolling tremor in his left hand was evident, as were repetitive flicking movements of his right hand. He constantly moved his feet and changed position of his legs frequently. His insight was partial; although he recognized the need to be in hospital, he still retained his delusional system.

Family and Social History
There is a strong family history of depression. A paternal grandfather committed suicide, and a maternal grandmother suffered from depression. Yuri's mother also suffers from depression, and a cousin has been diagnosed as "autistic."

Yuri was born in Russia. His parents are professionals; his father, aged 63, is a physicist who was a university professor, and his mother aged 53, is a physician. After his father was refused twice for promotion within the university, his parents decided to emigrate. His mother suspects anti-semitism as the reason for the failure to be promoted. His sister, who suffered with a thyroid disorder throughout her life, died in 1982, at age 24. Yuri arrived in Australia when he was six.

Yuri's family has been described as a happy one, apart from the trauma of his sister's illness and death. Even though he was a top student, he disliked the work and generally found school to be too structured and restrictive. He went out with his first girlfriend when he was 18 years old. This was a "very good" relationship. Eventually the girl terminated the relationship, however, and Yuri has not had another girlfriend since then.

Medical History
Yuri displayed normal birth and milestones. His physical examination was normal, as were all laboratory investigations, including CT scan and EEG.

Hospital Course and Treatment History
Yuri remained in the hospital for ten months during this second admission. Although his hallucinations and delusions had remitted almost completely during his first hospitalization, they were markedly treatment-refractory during this second admission. He was initially placed on the same medications which had been used before and to which he had responded well: trifluoperazine and diazepam. Because of his concern about akathisia and an increase in his auditory hallucinations, the medication was changed to thioridazine. This also produced very little response. Because of his mixed affective state, with both depression and elation, he was treated with imipramine (up to 50 mg per day) for a few weeks. He showed no response to this, and so lithium carbonate was commenced and increased to appropriate therapeutic doses and appropriate blood levels. This also produced no response, and so a second trial of trifluoperazine was attempted, this time up to a higher dose of 30 mg per day. Yuri was no better after a month on this drug, and so ECT was administered on seven occasions over two weeks, but
again there was still no overall improvement. A trial of remoxipride was then initiated, which also produced no relief. He continued to have psychotic symptoms, which fluctuated in intensity and were often distressing. Sometimes they “turned nasty,” became very derogatory, and commanded him to kill himself. He also continued to have fluctuations of mood, which produced a mixed affective state that combined brief highs and lows. Although Yuri's affect was clearly blunted, it remained reactive, and he showed a marked worsening when he learned that another patient (female), who was recently discharged from the hospital and to whom he had become attached, had completed suicide. Throughout his ten-month stay ward staff recognized that he was a high suicide risk, which (in combination with his treatment response) accounted for his very long hospitalization. He was, however, allowed to leave on weekend passes from time to time. While out on a weekend pass during the tenth month of hospitalization, he committed suicide by hanging himself.

Differential Diagnosis

The major differential diagnosis is between chronic schizophrenia with treatment resistive positive symptoms and secondary mood disorder, versus schizoaffective disorder. The chronicity and severity of his psychotic symptoms in relation to his mood symptoms argues for the former, but in this case the distinction is quite difficult. Clinically, the distinction is academic, but from the point of view of research studies designed to identify mechanisms, Yuri's family history might place him more closely with affective spectrum conditions than with schizophrenia spectrum conditions. This situation illustrates the point that diagnoses serve a variety of purposes, and the use of diagnosis in order to formulate treatment or prognosis can be quite different from the use in order to search for mechanisms and causes.

Editorial Comment

Yuri's case emphasizes a number of key features:
1) Mood disorder can occur either secondary to schizophrenia or as a component of it in the case of schizoaffective disorder; in either case the combination of mood symptoms with psychotic symptoms lead to a high suicide potential.
2) Yuri's poor response to a large number of different medications and other management strategies resulted in a sense of demoralization and hopelessness not only in him, but also in his family and at times in the treating team.
3) He showed poor compliance with medication, especially when allowed to leave on weekend passes. This poor compliance was definitely affected by his sensitivity to side effects. Although the treatment team tried a variety of approaches to ameliorating those side effects, these were no more successful than their attempts to treat his psychotic and depressive symptoms. In such situations, it is especially difficult to design appropriate treatment strategies.
4) His persistent psychotic symptoms interfered with rehabilitative strategies. They caused him to spend a large amount of time preoccupied with his internal world and impaired his ability to make use of a variety of talents, including poetry and painting. Tapping into these skills might have eventually helped relieve this sense of demoralization and might have prevented his suicide.

CASE 7: Sarah: Manic-Depressive Illness Initially Misdiagnosed as Schizophrenia
Country of Origin: USA
Author: Robert Cancro

Identifying Data

The patient is a 35 year-old woman referred for psychiatric treatment by her attorney, whom she consulted about obtaining a divorce.

Presenting Complaint

The attorney was concerned because he felt her reasons for seeking divorce might be inappropriate. She indicated that she had fallen in love with a famous political figure and wanted to begin to establish a relationship with him.

History of Present Illness

Sarah presented to an attorney in the late fall, requesting his assistance in obtaining a divorce. She indicated to the attorney that her husband and children were very fine people and that she had no wish to injure them or cause them any pain. Nevertheless, she had fallen in love with a famous political
figure (Teddy Kennedy) after seeing his photograph in a national news magazine. She believed that once she was free from her marriage, this famous figure (whom she had never met) would be perfectly agreeable to marriage. The attorney felt that a psychiatric consultation should precede any further action.

The psychiatrist whom she consulted was impressed with the delusional features of her illness and began to treat her with neuroleptics. She displayed a variety of other symptoms, including decreased need for sleep, increased psychomotor activity, and enthusiastic grandiosity. Most of these symptoms normalized after several weeks on neuroleptics, but her preoccupation with Teddy Kennedy only diminished in intensity and did not disappear completely. Approximately six months later, however, while she was still on neuroleptics, the delusional interest disappeared completely in a rather sudden manner, and Sarah developed insight about the foolishness of her thinking.

The following fall, despite still being on neuroleptics, she once again decided she was in love with Teddy Kennedy, had to obtain a divorce in order to marry him, and got a new attorney. She also switched psychiatrists at this point. The second psychiatrist noted the expansive and grandiose features of her delusions in conjunction with her increased psychomotor activity and a history of two depressions in her late teens and early 20s. He decided that this history warranted the use of lithium, which he substituted for the neuroleptics. Within six weeks, Sarah made a dramatic improvement. She has now been maintained on lithium for a number of years and has done well, although it is sometimes necessary to add low dose neuroleptics during the fall and early winter, when she tends to have an exacerbation of her symptoms.

Differential Diagnosis
In all likelihood, the initial diagnosis of delusional disorder or schizophrenia was wrong, and Sarah in fact had a bipolar disorder that was initially misdiagnosed. Since both mania and paranoid schizophrenia or delusional disorder often respond well to neuroleptics, this distinction is sometimes difficult to make. The clue in this case is the clear offset of the delusions, suggesting that the manic disorder had run its natural course. The seasonal nature of the exacerbations and remissions is another clue suggesting bipolar disorder, as are the accompanying features of grandiosity, decreased need for sleep, and increased psychomotor activity.

Editorial Comment
Clinicians need to be especially sensitive to the differential diagnosis of mood disorder and schizophrenia. Because both disorders often respond to neuroleptics, an erroneous diagnosis of schizophrenia can pass unnoticed. Although this particular patient did relatively well, some patients develop negative symptoms or severe extrapyramidal side effects from neuroleptics, and they may in fact look "more schizophrenic" in some respects, causing the underlying recovery from the affective episode to be covered over and leading to a picture of chronic negative schizophrenia. Consequently, it is probably safer to lean in the direction of overdiaognosing mood disorder when in doubt, particularly in first episode patients. If the uncertain case does not respond after a three-to-four week course of a medication chosen to alleviate symptoms of mood disorder, very little is usually lost, and a neuroleptic can be successfully instituted instead. Such decisions must obviously be made, however, in the context of the overall clinical picture, taking features such as severity of symptoms and suicidal potential into account.

CASE 8: AY: First Episode Schizophrenia
Country of Origin: Japan
Author: Mitsumoto Sato

Identifying Data
AY is a 22 year-old female college student brought in for admission by her parents.

Presenting Complaint
The family expressed concerns about her bizarre speech and behavior and agitation. The patient states that she wishes to "escape from a terrible monster taking the shape of her father."

History of Present Illness
AY was admitted for acute psychotic symptoms occurring in the context of a six-month prodromal period characterized by somewhat atypical features and longstanding adjustment problems beginning at age 15.

AY was admitted to the hospital on October 27, 1992. She reports that she noticed the beginning of significant problems during the previous spring. She began to feel increasingly tense and nervous. When she got into a street car or an elevator, she would feel that her face was getting very stiff and tense and became concerned that someone might notice and think that she looked strange. She adapted to this by trying to smile continuously whenever she was around others. She reports feeling symptoms of panic, with shortness of breath, a smothering sensation, and palpitations. She also describes feelings of depersonalization - as if she was somehow separated from herself and looking at herself as an outside observer.

She became increasingly upset and concerned and was no longer able to attend her college classes. She was particularly fearful of being around men and especially her father. She describes feeling angry toward him and wanting to attack him aggressively in some way. She also felt depressed and suicidal and began to make several different kinds of suicide attempts, including cutting her wrists and on one occasion taking a large dose of aspirin. She also would occasionally indulge in binge eating.

AY and her parents became sufficiently concerned about these symptoms so that they sought treatment in an outpatient clinic on May 12. Treatment with a small dose of neuroleptics and supportive psychotherapy was begun, but she refused to continue to visit the outclinic after the first several appointments. Instead, she retreated to her room at home and remained there all day long. Her binge eating became more prominent. She describes feeling depressed, hopeless, and nihilistic. She also describes feeling perplexed about her own identity and about the meaning of existence. She made several additional suicide attempts, which involved cutting her wrists. Her condition steadily worsened, until she was brought into the clinic again by her parents in late October. By this time, she was clearly floridly psychotic. Her parents describe that she had been recently displaying bizarre speech and behavior. She would laugh or cry without any apparent stimulus and over things that had no particular affective content. Her speech was rambling and incoherent. She also complained that others were able to hear her thoughts out loud as well.

Mental Status

At the time of admission AY was in a confusional state, with marked psychomotor excitement, insomnia, and incoherence. Her affective responses were severely disturbed. She frequently smiled in a silly way, and she showed sudden and unpredictable changes in affect. Her mood was labile, and she would sometimes become angry, leading her to aggressively attack nurses and other patients. Her speech displayed a marked loosening of association, with rapid shifts from one topic to another, so that her line of reasoning was difficult to follow. Nevertheless, she clearly was experiencing a variety of delusions. She reported that others were spying on her and using a microphone to record her thoughts, that they could read her mind, that her thoughts were being broadcast through the television set, and that she was being troubled by a terrible monster who looked like her father.

Family and Social History

A paternal aunt has had a history of psychiatric illness, having been admitted to a psychiatric hospital for a psychotic episode on one occasion.

Her father is a university professor. AY lives with her parents and a younger sister. She has grown up with negative feelings toward her father, whom she saw infrequently, since he tended to be very busy with pressing work at the university. Further, he had to make several shifts in university appointments, causing her and the rest of the family to have to move and making her change schools at the ages of 10 and 15. AY found these moves difficult to handle.

She experienced her first problems after one of these moves at age 15. After changing her school, she began to feel tense and anxious when she tried to communicate with others. She describes feeling upset by these experiences and attempted to "change her character," but was unsuccessful in this endeavor. She began to worry that she was somehow different from others her age. On one occasion she became sufficiently upset so that she ran away from home.

By age 16 she began to refuse to attend school because she was fearful of communicating with her classmates. She also began to indulge in binge eating. After one year of this behavior, her parents brought her into an outpatient clinic, where she was diagnosed as school refusal with bulimia and
psychotherapy was recommended. She participated in the therapy for only one month and then terminated. On the surface her behavior began to improve, and she was able to complete high school and enter college. Others, including her parents and teachers, reported at that time her personality seemed to return to normal. They described her as being obedient, serious, and cheerful. She reported, however, that internally she continued to hate herself more and more and that she continued to feel very anxious about being around other people and having to relate to them. She remained in this anxious state until her situation worsened in spring of 1992.

**Medical History**

Birth and milestones were normal. Her medical history is unremarkable except for a single febrile convulsion during infancy.

**Hospital Course and Treatment History**

Initially efforts were made to treat her with oral medication, but she refused to take it; consequently, intramuscular neuroleptics were initiated, and she was given doses of fluphenazine decanoate (12.5 mg every two weeks for approximately two months). As she became more compliant, oral medications were added. By the end of November, the acute phase of her psychotic symptoms had improved markedly, and she was able to go out on activities such as shopping by herself. As the psychotic symptoms remitted, however, she began to show more depressive symptoms. These occurred in the context of psychotherapy treatment, as her doctors started to talk with her about her lifestyle after discharge. She began to express perplexity about her identity and the meaning of her existence. On one occasion she tried to run away from the hospital and to attempt suicide. Treatment with psychotherapy continued, and antidepressant medications were added to the daily dose of antipsychotics; as the antidepressants were added, the dosage of antipsychotics was gradually decreased.

By January she had shown marked improvement, and the possibility of discharge was discussed with her and her family. She expressed anxiety about returning to her family setting, however, and further exploration indicated that additional family therapy was needed. The treatment team continued to work with her and her parents in order to explore ways that the family could reduce her stress and anxiety and become more supportive. After additional work to adjust the patient/family relationship, AY was discharged in March and was able to return to college in April. She and her family continue to participate in maintenance therapy, and she also receives maintenance pharmacotherapy involving small doses of both antidepressants and neuroleptics.

**Differential Diagnosis**

The major differential diagnosis is between schizophrenia with secondary depression and schizoaffective disorder. The former diagnosis is more likely, since psychotic features in the absence of prominent mood abnormalities were prominent, and her most significant depressive symptoms developed as the psychotic symptoms began to remit and as efforts were made in psychotherapy to explore her long term adjustment. The possibility of schizoaffective disorder must also be considered, however, since the patient reports some affective symptoms for many years. Further, her longstanding history of personality and adjustment problems, beginning at age 15, suggest that she may have an underlying personality disorder, particularly borderline personality disorder.

**Editorial Comment**

This case illustrates the extraordinary variety of prodromal symptoms that may be experienced by individuals who eventually develop a psychotic break. AY displayed some typical prodromal symptoms, such as feelings of depersonalization and social withdrawal. Others are, however, less typical, such as bulimia.

Her longstanding difficulties indicate that her prognosis should probably be rather guarded. While she appears to have recovered fully from her first clear psychotic break, this break occurred in the context of substantial and significant problems since age 15, including suicide attempts and aggressive and violent thoughts. She is likely to need maintenance and supportive therapy for some time. Further, the development of depressive symptoms following insight about her psychosis suggests that she could be at high risk for suicide. Suicide is a particularly significant risk in young first episode patients and is best handled by establishing a close and supportive relationship between the patient and a single therapist; the therapist should contract with the patient to contact the therapist if suicidal thoughts or behaviors begin to emerge.
CASE 9: Arthur: Acute Onset First Episode Psychosis
Country of Origin: South Africa
Author: François Daubenton

Identifying Data
Arthur is a 35 year-old black/African man who lives with his maternal grandparents. He has two children and plans to marry his girlfriend at the end of the year. He works as a bus driver. He was referred for admission from the Psychiatric Emergency Unit at the local general Hospital.

Presenting Complaint
He reported hearing voices of three acquaintances discussing turning him into a "zombie" or statue, and then using him "for their evil deeds."

History of Present Illness
Arthur was well until four months prior to admission. At that time, following an incident in which his life was threatened by taxi drivers during a taxi war, he reported hearing voices and was admitted to the psychiatric emergency ward for three days. The symptoms settled down after 36 hours, and he was discharged on no medication.

Now, four months later, he presented feeling he was bewitched by three acquaintances, as they are jealous of him. They control his thoughts and actions, which causes him to become extremely fearful. They use evil spirits, probably from the ancestors, to influence him. He fears they may blind him whilst he is driving, and all his passengers may be killed.

He hears voices of three people planning to kill him. The voices have a "congress meeting" in which they discuss him; at other times they speak directly to him and give him instructions.

The week prior to this episode of auditory hallucinations, he reports feeling very fearful and apprehensive, as if he had done something wrong. He was unable to work and despite wanting to sit quietly he felt restless. The duration of the auditory hallucinations had been approximately ten days. Prior to this presentation, Arthur had used alcohol excessively for approximately seven years. He drank only on his days off work and reported stopping four months previously with his first episode of auditory hallucinations. He reported no symptoms of dependency on direct questioning. He gave no history of cannabis or mandrax usage.

Mental Status
Arthur was of average height and build and neatly dressed. He sat quietly and was cooperative. His affect was anxious. His speech was normal and coherent. No evidence of formal thought disorder was elicited. He described marked delusions of control and persecution, as described above. He described disordered possession of thought with thought insertion, thought broadcasting and thought withdrawal. He described auditory hallucinations of people discussing him in the third person and giving him instructions. No visual hallucinations were reported. His cognitive testing was intact. He showed limited insight into his problems.

Family and Social History
Arthur is the eldest of four children. His father died from a myocardial infarction 12 years previously. His father was a religious man with whom the index patient had a good relationship. His mother is 59 and is retired due to hypertension. She was a teacher. His siblings, one sister and twin brothers, are all studying at University. Arthur assists the family financially.

There is no family history of psychiatric illness.

Arthur was a normal, healthy child. He did well at school and had to leave midway through his final year for financial reasons. He continued studying through night school and passed his matriculation examinations. He was employed initially as a petrol attendant and has been a bus driver for the past six years. He has a relationship with his girlfriend since leaving school, and they have two children aged seven and three years.

Medical History
He had a normal birth, and his milestones were normal.
Eighteen months previously he had been involved in a fight in which he had been stabbed in the back and had sustained a blow on his head. He was subsequently dizzy and had a stiff neck. There was no loss of consciousness. Apart from this incident, he has had no medical illness of note.

Hospital Course and Treatment History
Arthur was admitted to an open ward for psychotic conditions. Laboratory tests on admission included a full blood examination V.D.R.L., liver function tests, electrolytes and urea, and thyroid function tests, which were all normal. A urine test for cannabis and an E.E.G. were also normal.

He was commenced on oral chlorpromazine in a dose of 300 mg a day in divided doses. Within four days he reported that the auditory hallucinations had ceased. He was, however, still deluded and described disorganized thought possession. He was also complaining of over-sedation. After one week his medication was therefore changed to perphenazine 4 mg in the morning and 8 mg at night.

Arthur was also involved in a ward program, which included assertive training, anxiety management, education concerning his illness, and counseling about his alcohol use. Supportive individual therapy was also undertaken.

He responded well to the treatment program and was discharged after six weeks treatment on perphenazine (4 mg in the morning and 8 mg at night). At discharge he still believed that people wished to bewitch him. He believed that the medication would protect him from their attempts to control him.

Differential Diagnosis
The most likely diagnosis in this man was schizophreniform disorder with acute onset. He displayed florid symptomatology in many domains, and he also had First Rank Symptoms that persisted despite adequate treatment for six weeks.

Other diagnoses which must be considered included a brief reactive psychosis and an alcohol-induced delusional/hallucinatory condition. These diagnoses are much less likely, however, because of the prominence and persistence of the psychotic symptoms. Since he had no access to alcohol during his hospitalization and showed no signs of withdrawal, a psychotic syndrome secondary to alcohol is unlikely.

Editorial Comment
This case illustrates the acute onset of a psychotic condition with Schneiderian First Rank Symptoms in a developing country. The cultural flavoring of the presentation should also be noted. The exclusion of other possible causes of this presentation such as cerebral syphilis and alcohol or drugs is important, since these are not uncommon causes of a psychotic syndrome in developing countries.

The relatively rapid resolution of the auditory hallucinations and absence of negative symptoms should also be noted. These suggest a relatively good prognosis, as do the patient's good premorbid adjustment and his close ties to his family. The fact that his delusions were still persistent at the time of discharge are a source of concern, however, and therefore the prognosis is guarded. Close outpatient follow-up will be needed both for his own protection and that of his passengers. This will include both medication and supportive therapy.

CASE 10:  YF Wang: Chronic Schizophrenia with Severe Violent Episodes
Country of Origin:  China
Author:  Wenwei Yan

Identifying Data
The patient, YF Wang, is a 25 year-old man who was brought to the psychiatric hospital by police and his family members because of violent behavior, which caused serious damage to a younger worker.

Presenting Complaint
This is the third admission since March of 1966. His family requested prompt and long-term treatment because of his unpredictable and unmanageable violent behavior.

History of Present Illness
This is the patient's third admission to the hospital. He has been hospitalized for more than ten years in an effort to control increasingly violent and aggressive behavior that is triggered by persecutory delusions. YF's symptoms began to be prominent in 1963, when he was 19 years old. He became
agitated and verbally abusive to his mother and his colleagues at work. He complained that someone always followed him just like a ghost. He was seen in the outpatient department for about one month, and he was treated with chlorpromazine. After one month of medication, the acute symptoms subsided, and he was able to return to work again without any maintenance medication. Approximately one year later the symptoms recurred, but they again responded to a relatively brief (three month) course of medication. In 1966 he experienced a more severe exacerbation, which required hospital admission. At this time he was agitated, angry, and suspicious. He believed that the police were following him and that people were making fun of him at work. He acted on his delusions by chasing a police car with his bicycle and finally running into it; he explained that the police who were driving the car were chasing him in order to persecute him and that he would try to destroy both himself and the car by running into it. It was this behavior that occasioned his admission. On the ward he was anxious and restless. At times he would strike other patients or staff members. His behavior responded quickly to chlorpromazine, however, and he was discharged after three months on maintenance medications. Six months later he had a similar episode, which again required three months of inpatient treatment. Although he was again able to return to work after this second hospitalization, he had become increasingly dysfunctional. He worked in a factory, and much of his time at work was spent talking to other workers about how they were making fun of him, how the police were trying to trick him, or how the boss was picking on him. As these symptoms built to a crescendo, he began to stay up all night pacing and worrying. His third admission (the current one) occurred after he became so upset that he hit his colleague, Chen, with a long steel pipe, seriously injuring the young man. The police picked YF up and brought him to the psychiatric emergency unit.

Mental Status
At the time of admission YF was described as neatly dressed and appearing his stated age. Immediately after he came into the ward, he suddenly attacked and harmed three ward staff with a chair. Consequently, he had to be restrained. He described persecutory delusions as the reason for his behavior. He explained his violent attack on the hospital personnel was motivated by the fact that they were cooperating with Chen in his efforts to torment him and to turn the police against him. He was convinced that Chen was the “chief criminal” and must be punished. But he could not explain why the young man and his group wanted to persecute him. He also described other delusions, such as the belief that a kind of "electric light" irradiated into his room in the form of a spirit, which made him feel pain in his legs and groin. He believed that his room was bugged and that his thoughts and behavior were controlled by the "electric light." He described hearing voices, which commented on his behavior and told him that he was stupid. They also warned him about the danger he was in because of the conspiracy against him. His speech was normal, with no evidence of thought disorder. His affect was slightly blunted, and occasionally he laughed inappropriately. His mood was irritable. He had no insight.

Family and Social History
YF had a prominent family history of schizophrenia. His father had been diagnosed as having schizophrenia and died in an accident some years ago. His older brother had been diagnosed as having schizophrenia, and was taken to a psychiatric hospital several years ago. He appeared suspicious, having persecutory delusions, but without violent behavior. After receiving psychiatric drug treatment he was discharged and kept his job.

YF showed normal physical growth. His education was quite normal. After graduation from middle school, he applied for a job in a large factory as a turner when he was 18. He worked hard until he became mentally ill in the next year. Prior to the onset of the disorder, he was an introverted young man, pleasant but shy, and never showed verbal abusive or violent behavior.

Medical History
YF had normal birth and milestones. He had no known physical illnesses.

Hospital Course and Treatment History
After admission in March of 1969, YF received a regular course of chlorpromazine in a dose of 800 mg per day. His behavior showed little improvement. The pharmacological therapy was supplemented with a course of ECT, three times a week for three weeks. His behavior had somewhat improved, but he still showed signs of some hallucinations, and sometimes he laughed inappropriately to himself. His persecutory delusions had not diminished.
One month after receiving the course of ECT, he attacked the staff suddenly because he thought the young nurse sucked his sperm through the air. Over the next several years he was tried on a variety of other medications, including, perphenazine, stelazine, fluphenazine, and clozapine. But YF showed very little response to these medications. His delusional thinking and aggressive behavior persisted. Sometimes he hit other patients; sometimes he attacked the nurses. Sometimes he said that the voices ordered him to strike others; sometimes he complained about his persecutory delusions, which impelled him to attack the staff.

The violent behavior became more and more frequent. By 1970, the second year of his hospitalization, the ward staff had to restrain YF in leather handcuffs day and night. When the handcuffs were taken off, the violent behavior returned within hours to weeks. After an effort to keep him unrestrained for at least one week, YF hit someone with a heavy blow and broke the window glass. The leather handcuffs always had to be put on again. He was maintained on clozapine in a dose of 800 mg per day and lithium carbonate 1.0 per day, although this medication had shown no good response. YF was called “Tiger Wang” because of his frequent, unpredictable violent behavior.

In 1985 a decision was made to treat him with psychosurgery, in the hope that this would alleviate his behavior and permit the elimination of the restraints, which were now in place permanently and had been for many years. A multitarget stereotactic limbic psychosurgery was performed on YF. After the operation, his behavior changed dramatically, and he seemed quiet and calm. He never showed violence in the following ten months, though he took no medication. But after ten months, the delusions occurred again, and the violent attacks began again. YF had to be on medication as before—clozapine and lithium, and the leather handcuffs had to be put on again.

YF gradually improved in the next years, but no one dared to take off the handcuffs until the end of 1987. By this time his behavior had improved. To the surprise of the staff, he was now calm and quiet. If he had been called “tiger” before, then be became a “mouse” in 1988. His delusions were also diminished. He had no hallucinations. He showed some inappropriate affect just as before, and his thinking and speech were somewhat disorganized. He had no insight into his previous experiences. However, YF could live calmly in the psychiatric ward, without any aggressive or violent behavior.

Unfortunately, on February 20, 1988, YF died due to sudden vomiting of large amounts of blood. It was considered an upper GI bleed.

**Differential Diagnosis**

Based on his family history of schizophrenia, his prominent positive syndromes such as bizarre and uncontrolled delusions and hallucinations, and his disorganized and violent behavior, the diagnosis is schizophrenia, especially because he had no insight into his behavior even after it improved.

**Editorial Comment**

This case illustrates a relatively rare phenomenon: schizophrenia characterized by dangerous and violent behavior which is almost totally treatment-refractory.

Although violent behavior in schizophrenia is much less common than popular descriptions suggest (based on the attention given to mass murders and other phenomena in the media), it does occur, usually as a consequence of delusions and hallucinations. Although such behavior can usually be controlled by medications, it is refractory in some individuals. In these patients long-term hospitalization is often required in order to protect family members and others from the dangerous behavior of the patient.

When such a long-term hospitalization occurs, the risk from the patient is transferred to other patients on the ward and to the nursing and medical staff. Although violent behavior can usually be controlled with medication and the occasional use of “quiet rooms” or physical restraints, YF represents an extreme case in which all interventions were tried without success. Consequently, the relatively extreme measure of psychosurgery was employed. YF’s course after psychosurgery illustrates a common pattern. In at least some patients, the maximal improvement does not occur immediately. Although YF was initially better, the improvement did not persist after the first month. Healing apparently continued to occur, however, and the surgery ultimately had the calming effect that was sought. By eighteen months after the surgery, YF’s delusions, hallucinations, and violent behavior had remitted. If he had lived, he might eventually have been able to leave the hospital, if provided with adequate supports.

**CASE 11: Anna: What was First: Schizophrenia or Tumor?**

Country of origin: Hungary
Identifying Data
Anna is a 25-year-old single woman who was referred to the university inpatient unit by a county general hospital psychiatric department for further treatment.

Presenting Complaint
Her mother requested the transfer as she didn't believe in the diagnosis of schizophrenia, but worried about her daughters’ apathy and lack of emotional responsiveness. Anna herself had no complaints. She states that she has four husbands: W.A. Mozart, J.S. Bach, A. Vivaldi and L. von Beethoven. She does not believe that she is sick; she only went to the hospital because of the will of others.

History of Present Illness
Anna has had a long and complex history. Her problems began approximately four years ago, in March of 1989. At that time she began to display a variety of delusional thoughts, including the belief that she had developed AIDS. She first received medical and psychiatric attention after an episode in which she became restless, delusional, and suicidal. She noticed that “she was losing her hair.” She also began to declare that she was poisoned by her mother, father and sister. She began to accuse herself of having harmed her lover by importuning him too much. Finally one evening she became furious, wanted to break the TV set, stating that she was wicked, and unifying Hitler and Stalin in herself. She had a notion that she was guilty of killing her nursery friends in her childhood. Because of all these things, she wanted to kill herself. Consequently, her mother contacted the hospital in her home (X City), and she was taken to the hospital by ambulance.

Her symptoms occurred in the context of a complex personal, social, and family situation. Anna grew up in X City. She was extremely successful in school: a brilliant poetry reciter and artist. She applied to study in the College of Dramatic Art, but was refused, as she was by the School of Art. She then moved to Budapest with her mother's assistance, became a corresponding student, worked eight hours a day, and became a member of an amateur theatrical company. Half a year later she left the company, for she had lost an important role. She also states that she was teased about her virginity and felt hopelessly in love with another member of the company. After that she felt herself weak, dizzy, and short of breath. She was sent for observation to a Lung Department. There a psychologist examined her and asked her to draw a tree. In her drawing a slanting branch was explained by the psychologist as a string. When Anna told this story to her mother, they agreed that the psychologist was encouraging her toward suicide. Her mother then decided that they should return to X City for a rest. Thereafter, she began to notice the hair loss and developed the belief that she had AIDS and the other symptoms that occasioned her hospitalization.

The patient was brought to the X City hospital closed ward by ambulance on March 13, 1989. Her internal and neurological state, as well as laboratory tests were all normal.

For weeks her behavior was aggressive; she kept accusing everybody and showed signs of psychotic regression. She received intramuscular haloperidol and diazepam. Her state gradually improved and she had some acceptance of her disease. The parents, who had been separated, agreed to start a common life again and look after Anna together. However this cohabitation didn't prove to be successful because of the father's brutality. Anna became again aggressive and developed fear of persecution and attempted suicide, so she had to be rehospitalized. She displayed a variety of symptoms, including derealization, negativism, and depersonalization. She also described a variety of fragmented persecutory delusions that involved her family, her friends, and patients on the ward. Soon she became extremely aggressive, and so had to be transferred to the closed ward. This movement was so unacceptable for the mother that she "wanted to share the burdens as it will be divided so," and she insisted on being admitted next to Anna in the ward. When this wish was refused, the patient's mother threatened suicide, and so finally she was admitted to the hospital as well. There the mother started to belittle her daughter's condition and became so hostile toward the staff that finally Anna had to be transferred to a Rehabilitation Department 80 km from X City. In that facility, with the administration of clozapine, group psychotherapy and regular occupational therapy, her condition steadily improved, and after six months of treatment she could be discharged. For nearly four years Anna then lived on her own in X City, while her mother lived in Budapest. She received medication as an outpatient for the first several years, but eventually discontinued it. It is not clear how long she remained stable or when she began to...
decline and show an exacerbation of symptoms. She diminished her contact with her mother and was
less carefully observed by her family.

Her most recent admission in X City occurred approximately two months ago. Her neighbors
noticed her neglected appearance and inappropriate behavior and called the local general practitioner,
who requested her readmission. In the hospital, bizarre delusions, psychomotor retardation, and
diminished affective responsiveness were observed. Her mother came to see her and again became
intensely involved in decision-making about her care. The mother insisted that her daughter was
mistreated and finally achieved the transfer to our University Clinic on August 24, 1993.

Mental Status
Anna at her admission was a casually dressed young woman with a lovely childish face. Her
behavior was excited and disorganized. Her interest and attention were fixed on her delusions. She
complained aggressively that she was poisoned and persecuted by her family members, and even the
examining doctor could be a part of this conspiracy. She described voices coming from the TV, calling her
attention to this threat against her. She described these delusions with an intense and fearful affect, but
her affect was blunted when she had no opportunity to talk about her delusions. She appeared confused,
but was oriented in person, place and time.

Family and Social History
There is no family history of any psychiatric illness.

Her parents were divorced when Anna was six months old. Anna's father is a craftsmen, an
alcoholic, and an aggressive person, but now and then could take responsibility toward his daughters. His
relationship with the family was sometimes affectionate and other times conflicting.

The mother has an extraordinary, colorful, stubborn, histrionic personality. She was a clerk, but
had always taken extra work to make a living for the one-parent family. She stated that her two daughters
were excessively trustful and honest girls, and so she has always given examples of her many bad
experiences to make the appropriate balance. She always wanted to become an actress, but her family
did not give her an opportunity to fulfill her ambition. She fully implanted this idea in her younger daughter,
Anna, while neglecting the stronger, older one, Martha. She was extremely proud of Anna's success in
high school, but totally disappointed with the refusal of the Academy of Art, in which they suspected some
incorrect happening. Being convinced of her daughter's talent, the mother and Anna moved from X City to
Budapest in 1986. Here the mother shouldered two cleaning jobs to provide enough opportunity for her
daughter to study and perform art at the same time. While in Budapest, Anna began to develop the
symptoms that eventually brought her to medical attention.

Medical History
Birth and development were normal. At age of five she had an inflammation of the colon. When
she was 16 years old a fibroma was taken off from her right breast. After that her mother has always
called her attention to check her breasts regularly.

Hospital Course and Treatment History
Mental status on admission to the University Clinic was as described above. Neurologically she
seemed normal. On the next day the suspicion of catatonic behavior arose, but by the third day she
became atonic and fell into a comatose state. At examination oedema papillae o.u. was observed. A CT
scan was obtained and revealed a left-side frontal tumor. Anna was urgently transferred to neurosurgery,
where she was operated on the same day with left frontal craniotomy. A falx meningeoma was removed. (Histiology: Meningeoma endotheliomatous partim fibromatosum.)

After the surgery, Anna's condition improved rapidly. By three weeks after the operation Anna had
no complaints. She was seen most recently this past week, approximately six weeks after the surgery.
She is almost permanently smiling, very talkative, often digressive and circumstantial. On direct
questioning she reports with the same incongruently elevated mood all her previous bizarre, delusional
experiences and pathological fears, but it is now as if these had been only dreams - very distant and ego
alien thoughts. Briefly: the residual symptoms, mixed with mild organic features make it likely that Anna's
psychosis has been unintentionally treated by frontal leukotomy.

Differential Diagnosis
The major question is whether all her symptoms could be explained by the frontal lobe tumor or whether two different processes have occurred simultaneously. The onset, the course of the illness, and its prominent positive symptoms - mainly delusional - plead for schizophrenia paranoid type. It seems unlikely that an organic personality syndrome could be responsible for all her psychopathology since the beginning, without any neurological signs during the four years since her onset. However, the psychomotor retardation, the neglect of her appearance, her lack of initiative and interest, and the blunted emotion (observed only in the last few months) might certainly arouse the suspicion of frontal lobe pathology, which could have been present for many years and passed unnoticed. Frontal tumors can be notoriously "silent" for some time. The fact that her delusional symptoms have persisted after the removal of the tumor supports the possibility of two simultaneous processes. If these symptoms disappear with time, however, then all her symptoms may have been secondary to the frontal lobe tumor. Her clinical picture during the six weeks post-operatively is also reminiscent of frontal leucotomy, in that she combined the reporting of delusional symptoms with indifference toward their content. This would have only occurred, however, if the surgeons had injured a large quantity of cortical and white matter tissue when removing the meningioma. The major issues concerning Anna's differential diagnosis will be decided by future longitudinal observation.

It is worth mentioning the mother's possible diagnosis. For many years Anna and her mother had a very close, quasi-symbiotic relation. The mother embodied in Anna her own theatrical ambitions. She has never accepted the psychiatric character of the illness of her daughter and for a short period she even shared with her a profound psychotic regression. Thus Anna's mother may have had a Shared Paranoid Disorder (folie a deux).

Editorial Comment

This case illustrates the importance of carefully considering a variety of nonpsychiatric medical conditions in the differential diagnosis of psychosis. Anna's presentation was relatively typical of a psychotic disorder, and so it was easy for the tumor to pass unnoticed and unsuspected. Its duration is unknown, but meningiomas often grow slowly and can escape attention for a number of years. Further, tumors in frontal regions may grow quite large before any symptoms are displayed. In Anna's case the classic "frontal" symptoms (i.e., apathy, avolition, indifference) appeared more recently, but the earlier symptoms may have been due to the irritative effects of a frontal lesion as well. If the tumor was present at the onset of the psychotic disorder, it would have been noted with a CT or MR scan, and Anna's subsequent suffering might have been avoided. Many other medical illnesses can mimic psychosis, such as infections, metabolic processes, or toxins and injuries. Clinicians need to be vigilant in considering these possibilities, particularly in young first-onset cases.

CASE 12: Rosa: Negative Symptoms in First Episode Psychosis

Country of Origin: Brazil
Authors: Monica Colares, Manuela Lima, Dorgival Caetano, Karime Petermann

Identifying Data

The patient is a 21 year-old single female, unemployed, who was brought to the psychiatric emergency unit by her parents and subsequently admitted to the psychiatric unit at the University General Hospital.

Presenting Complaint

The patient's family requested treatment for abnormal behavior, such as being in the same position for long periods of time, which alternated with episodes of violent outbursts.

History of Present Illness
The patient's parents described a change in her behavior five months prior to her admission. She would say that her uncles and cousins did not like her, and that was why they wanted to harm her. At that time she was still looking after her personal hygiene, eating, and sleeping properly. "Although she would say strange things she was still able to speak." A few weeks later she began to stand in the same position for long periods, exposing herself to the sun and thus got sunburned. If anyone tried to remove her, she would become physically aggressive. She started to urinate in her own clothes and had inappropriate laughter. She would stay completely immobile and virtually unresponsive to external stimuli, but occasionally she would suddenly break into violent episodic outbursts. In one of these episodes, she tried to kill her brothers and mother and physically attacked her brother. She almost never spoke, even when prompted or questioned, but sometimes she would say that she had something in her throat and that she could hear a voice calling her name. She also asked her father to kill her. At this point she no longer looked after her personal hygiene, ate very little, and always ate from somebody else's plate. At night she walked uninterruptedly, spitting and drinking water constantly. She complained of weakness in her legs and that she could not speak as her tongue was cut.

**Mental Status**

The neglect of her personal needs resulted in a bad appearance. She did not answer questions, kept a glazed look downwards, and avoided eye contact. She was very indifferent and showed marked lack of interpersonal relatedness. Her diminished emotional responsiveness was characterized by a reduction in facial expression, poor modulation of feelings, and the absence of communication gestures, while displaying stereotyped trunk movement. She repeated several times the same phrase: "something is in my throat, what time is it, fear." She was almost totally uncommunicative, displayed an intense lack of interest in the surroundings and was emotionally withdrawn. She was totally uninvolved with either interview or the interviewer. Because of her withdrawal and noncommunicativeness, the presence of delusions and hallucinations was difficult to determine. The reports of fragmented delusions, as described in the above "Present illness," and ceneesthetic hallucinations came almost completely from family reports. Her ceneesthetic hallucinations consisted of the sensation that her internal organs were burning and rotting, that her legs were removed from her body, and that her tongue had been cut off.

**Family and Social History**

A paternal grandfather was diagnosed as having schizophrenia, but there is no other family history of mental illness. Rosa's father is unemployed, and her mother works cleaning hotel rooms, providing the primary financial support for the family. Rosa is the second of four children. She was always somewhat shy, but she did have some close friends during childhood. She was an average student who left school at age 14 in order to obtain work. She had a variety of jobs. Her best was working as a waitress in a small restaurant for 18 months. She lost her most recent job approximately eighteen months ago. It is not clear whether that job loss was related to the gradual development of her withdrawal and indifference.

**Medical History**

Birth and milestones were normal. Medical history is unremarkable.

**Hospital Course and Treatment History**

An EEG and brain CT were carried out and both were normal. The SPECT performed in resting condition showed a decrease in blood flow in both the left temporal and frontal lobes.

The patient was hospitalized for 40 days. She received oral haloperidol 5 mg/day and the dose was gradually increased to 20 mg/day associated with biperidene 6 mg/day. On the fifteenth day after admission she began to show some improvement: she started eating by herself and was more responsive to external stimuli. She continued to stay in bed, however, and refused to take part in the ward activities. Her improvement continued steadily, and she gradually became more sociable. With staff encouragement, she began to participate in ward activities. She was placed on a care program that required that she assume responsibility for personal hygiene and other activities of daily living. By the time of discharge she was fully independent in this regard. She displayed no delusional thinking and no longer reported any of the ceneesthetic hallucinations when questioned about them. She was clearly not in full remission, however, because she continued to be aloof, withdrawn, apathetic, and emotionally blunted.
Long-Term Treatment Plan
Rosa was discharged on haloperidol, 10 mg day, to be followed up as an outpatient in a day care program. Her dosage of medication will be gradually lowered in order to determine whether her negative symptoms can be further improved on a low-dose regimen. The use of a newer atypical neuroleptic, which may be more effective for negative symptoms, will also be considered.

Differential Diagnosis
The patient appears to have had an insidious onset, with a mixture of negative and catatonic symptoms and markedly disorganized behavior. She had partial response to a typical neuroleptic, and a positive family history of schizophrenia. The diagnosis of schizophrenia appears to be relatively clear. The predominant symptoms suggest either the catatonic or the disorganized (hebephrenic) subtype.

Other diagnoses that might be considered are psychotic depression and organic mental disorder. The former is unlikely as the patient did not show depressed mood nor any prominent symptom of depressive disorder, but rather blunted affect, emotional withdrawal, and catatonic behavior. The latter is also unlikely because of the absence of symptoms such as clouding of consciousness and cognitive impairments. Furthermore, an EEG and brain CT were normal.

Editorial Comment
The patient illustrates the fact that many first episodes of schizophrenia may begin with negative symptoms rather than prominent psychotic symptoms such as delusions or hallucinations. Negative symptoms are not necessarily "end stage" symptoms that characterize deterioration. Rather, they are a core feature of the illness in many patients.

Rosa also illustrates the difficulty in applying diagnostic criteria to patients who are severely withdrawn and who display markedly disorganized speech and behavior. Because of the severity of her withdrawal, she was unable to give a detailed history herself, and as the medications began to take effect, she did not report any delusions or hallucinations. Therefore, it was important to obtain additional information from family members. Based on her family's account, these may have been present in fragmented form or as coenesthetic hallucinations (i.e., hallucinations involving the experience of a change in a body organ). The latter are considered by some clinicians to be especially characteristic of schizophrenia, but they do also occur commonly in other disorders, especially psychotic depression.

Although both the ICD and DSM criteria place a great emphasis on psychotic symptoms in the narrow sense (i.e., delusions and hallucinations), Rosa is an excellent example of a patient whose illness is marked more prominently by the negative symptoms and disorganization of thinking that were considered to be so important by Bleuler and Kraepelin. In some respects, she is among the most "classic" of cases.