

## Jerusalem syndrome – a case report

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### Summary

**Aim.** The aim of the paper was to present the case of a patient who developed acute psychotic symptoms on her visit to Jerusalem.

**Method.** The analysis of the clinical case and medical history.

**Results.** The presented 62-year-old woman with a history of previous psychiatric disorder arrived with her husband to Jerusalem as part of an organized tourist group. She developed acute psychotic reaction through some stages characteristic for the third type of Jerusalem syndrome. Symptoms resolved completely soon after returning to Poland and admission to the hospital where an antipsychotic treatment was performed.

**Conclusions.** Despite the rare occurrence of this phenomenon it is worth noting that we can divide Jerusalem syndrome into three types depending on their clinical course, patient's history of previous psychiatric disorders and it has some clinical implications. This syndrome can be also considered in the context of some factors connected with travelling in general which may be responsible for psychiatric disturbances occurring among travelers. The course of psychiatric disturbances presented in the patient resembled the third type of Jerusalem syndrome despite her past psychiatric history and probably travelling caused her decompensations. In clinical practice we have to remember that in case of the patients with a known psychiatric history, clinical evaluation may be useful before travelling. In previously healthy patients developing the third type of the Jerusalem syndrome early intervention and separation from Jerusalem and its holy places and their contact with family are crucial for quick recovery.

**Key words:** Jerusalem syndrome, reactive psychosis, case report

The term “Jerusalem syndrom” was introduced in 1982 by Yair Bar-El from Kfar Shaul Mental Health Centre where over the course of 13 years (1980-1993) 100 people a year were seen to develop psychotic symptoms with religious content induced by visiting Jerusalem, and 40 of them required admission to hospital [1,2]. There are no more recent epidemiological data in the literature regarding incidence of this syndrome. This phenomenon probably has taken place since Jerusalem became the destination of pilgrimage with some cases observed in the Middle Ages and increase in the incidence in the 19th century [1, 3, 4]. Bar-El and colleagues according to their clinical experience have distinguished three main types of individuals suffering from Jerusalem syndrome with regard to the patient's psychiatric history and clinical presentation. They also have shown some examples from their clinical practice [1,2].

In the first group (Type I) there are people with a history of psychiatric disorder and who come to Jerusalem under the influence of religious delusions. This group of patients is divided into three subgroups. People with the first subtype identify or are convinced that they are characters from the Old and the New Testament. The Israeli authors described the case of an American suffering from schizophrenia, who identified himself with the character Samson and he was convinced that he had a mission to achieve, he tried to move out a stone from the Wailing Wall. To the second subtype are ascribed people who have a religious or political idea, they visit Jerusalem and they want to act on it. The example was an Australian tourist who set fire to Al Aksa mosque in 1969, and this way he evoked bloody riots during several days. People with the third subtype syndrome have some magic ideas concerning the healing properties of Jerusalem. The Russian writer Gogol is described as suffering from this subtype of Jerusalem syndrome, but it is not certain [1, 2, 5, 6]. People with the fourth type of Jerusalem syndrome come several times to Jerusalem as a result of a relapse in course of their illness, directed by delusions concerning their family. In this case it is difficult to explain what is the significance of Jerusalem in the development of their psychosis or what is the cause of visiting this city.

The second group (Type II) comprises of people with personality disorders or fixed idea, they do not have confirmed mental illness, although their strange religious ideas are not far from delusions. They act either in groups or rarely alone. This is probably quite a large group of Jerusalem syndrome sufferers and gathered in groups they are visible in holy places and usually they are not reached by psychiatric services.

The third type of Jerusalem syndrome, also called “unconfounded” or “pure” is considered the most interesting form and comprises relatively of a small number of patients. It develops in previously healthy individuals (without history of psychotic disorders, significant job or family problems or substance misuse). They arrive in Jerusalem as ordinary tourists without a special mission or purpose. They are usually accompanied by their friends or relatives and participate in an organized tour of Mediterranean countries. These individuals develop Jerusalem syndrome through seven stages. At the beginning they are anxious, agitated, tense and have other unspecific symptoms. Then they want to separate from the group and to visit Jerusalem alone. This is followed by the need to take baths and showers, they compulsively cut their fingernails and toenails. They might wear a white sheet and shout or sing loudly psalms or verses from the Bible. They may eventually go to one of the holy places to “sermonize”, to make an appeal with an incoherent content for moral conduct. These patients usually do not have visual or auditory hallucinations, they know who they are, and do not pretend to be someone else. The symptoms resolve in 5-7 days. Therefore it is a short psychotic episode followed by complete recovery. These patients need treatment and often receive it, but recovery is quite often spontaneous and not necessarily due to the treatment. It is known that leaving Jerusalem facilitate treatment and often is necessary for recuperation. After recovery patients remember their behavior and are ashamed of it and they do not want to talk about their acts nor return to Jerusalem. Authors from Jerusalem think that the rift between an idealistic image of the holy city of people who were raised in religious families and a real Jerusalem, modern city being a center of religious conflicts underlie

this type of Jerusalem syndrome. Probably similar psychiatric symptoms may occur in people visiting Mecca, holy places in India and Christian places where the Virgin Mary is worshipped, although they are not well documented.

### Case description

A 62-year-old woman was brought by her family to the hospital directly from the airport after arriving from Israel. She was with her husband on an organized tour in Israel and Egypt. Her husband managed to organize an earlier return because of the worsening of her psychiatric condition. She suddenly became agitated, was in a changing mood, sleepless. She focused on cleaning her entourage, was licking a floor in a hotel. She presented strange behaviors, while sightseeing she gave other people water claiming that this is wine. She did not want to leave a church, she was praying ardently and wanted to leave the tourist group. She declared an intention of entry to an order. She hit her stomach being persuaded that she is possessed.

Until that time she was once hospitalized in a psychiatric facility and it was about 20 years ago. During an interview her husband (documentation from the patient's latest hospital stay was not available, the patient admitted later that it is hidden in her personal belongings) described the patient's previous episode as an acute psychotic episode and it was in temporary relation with their visit in the Vatican and professional travels to Turkey. Taking into consideration the time gap it was difficult to the patient's husband to recall all the events in detail. Then she used psychiatric services shortly and irregularly. After the first discharge she was prescribed trifluoperazine.

She has been married for more than 20 years, has one son. She was retired at the time, and before she was working in commerce with her husband. She kept her household without any problems unaided, and helped her mother-in-law for a few years. She learnt about the divorce of her son a few months before the present episode, and it was very stressful to her. The family history of psychiatric disorders was negative, she denied alcohol or substance use.

On admission she was in a superficial contact, talkative, agitated, in a changing mood, irritable, presented delusions with religious content and had a delusional attitude toward her husband and priest with whom she was travelling.

After admission there were urgently carried out basic laboratory tests, electrocardiogram and computed tomography of the brain. They did not show any abnormalities. During the first three days she received olanzapine in a dose of up to 20 mg daily (firstly in intramuscular injections, than orally). Taking into consideration the lack of efficacy of this treatment, olanzapine was replaced by haloperidol in a dose of up to 15 mg daily at first in intramuscular injections then orally. Directly after the administration of the drug her condition improved. During the patient's stay in hospital her mother-in-law which she took care of died. In this period she received occasionally hydroxyzine orally because she was anxious and had difficulty with falling asleep. The patient was discharged after 30 days with complete recovery, illness insight and was prescribed haloperidol 8 mg daily. The patient and her husband decided that they would never visit places of worship.

## Discussion

As the authors of this paper are aware, there have not been published any case reports of Jerusalem syndrome in Polish literature until now. This is surely caused by the fact that Polish psychiatrists rarely cope with these kinds of patients. The presented patient developed acute psychotic episode in a direct relation to her visit to Jerusalem for tourism purposes. In her behavior we could see some stages of the development of “pure” or “uncounfounded” Jerusalem syndrome, the duration of psychiatric symptoms was relatively short and they passed nearly directly after the administration of antipsychotic drugs. The diagnosis of the third type of Jerusalem syndrome in this patient is hindered by a history of her previous psychotic episode 20 years ago which in turn was connected with her visit in the Vatican. Nevertheless taking into consideration the course and clinical presentation of her disorder she did not fulfill diagnostic criteria of schizophrenia [11]. Among different authors there is not a consensus concerning the issue if Jerusalem syndrome is a distinct, specific disorder, or, is it a relapse in a course of schizophrenia. It is also questionable whether Jerusalem or its significance for visitors is a pathogenic factor or it is only a factor aggravating prior disorder and forming delusions’ content, and the place where behaviors of ill people are more visible [1, 5, 9, 10]. The authors of the term “uncounfounded” Jerusalem syndrome underlined that they did not have follow up information on the further course of illness in people developing Jerusalem syndrome and it makes it difficult to fully understand this phenomenon [2]. Taking into account acute onset, relatively short duration of symptoms and its features, acute polymorphic psychotic disorder without symptoms of schizophrenia according to ICD-10 criteria was diagnosed in the presented patient.

Symptoms occurring in the described patient can be considered in a wider context of disorders in travelers in general. Several authors describe a range of factors influencing the mental state of people who travel [1,2]: change in a routine of everyday life, unfamiliar surroundings, proximity of foreigners or strangers, inactivity, a sense of isolation and intercultural differences. In the case of the described Jerusalem syndrome these factors in combination with the special significance of Jerusalem to Jews, Christians and Muslims may trigger an acute psychotic episode. In turn in Stendhal syndrome or Florence syndrome indicated as similar, important for its development are emotions evoked by works of art gathered in Florence in visitors, who may experience in this situation anxiety or even develop psychotic symptoms. This notion comes from the name of the French writer who experienced déjà vu and anxiety in such a situation [1,2]. According to the author of this term Magherini, such reactions occur usually in people with a history of psychiatric disorders (similar to those with Jerusalem syndrome).

The next example of psychiatric disorders occurring in relation with travelling are psychotic symptoms in people who get lost in airports (airport wondering syndrome or airport syndrome). Unlike sufferers from Jerusalem syndrome they don’t know their personalities, from where they come from and where they are going. In some of them symptoms resolve after resting. However most commonly it afflicts individuals with previous psychotic disorders, who under the influence of mental illness come to the airport, not necessarily having a travel purpose [1, 2, 6, 8].

There are also described psychotic, affective and neurotic symptoms in Japanese visiting Paris, commonly called Paris syndrome. An important role here is attributed to foreign language, cultural differences followed by a feeling of isolation and also the gap between traveler's demands and the real image of the city and its citizens. Also in this case we can find people with previous psychiatric disorders and others who develop symptoms some time after arriving to France [7].

In conclusion, some people with a history of psychiatric disorder factors conjoined with travelling and visiting places evoking strong emotions may trigger an illness episode, although sometimes this is the case in previously healthy people. In individuals without a history of psychiatric disorders developing the third type of Jerusalem syndrome, early intervention, leaving Jerusalem and contact with family are important. These measures prevent from the development of full-blown syndrome and facilitate prompt recovery [1,2]. In a clinical practice it is important to take into account the travel destination of followed patient and possible factors which may trigger a relapse. Providing a patient and his/her company during travel in proper information is essential. If psychiatric symptoms of Jerusalem syndrome are recognized as acute psychotic disorder with a good outcome and participation of reactive factors or a relapse in course of schizophrenia remains to be considered in every single case individually.

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