CAS CLINIQUE/CASE REPORT

MASS PSYCHOGENIC ILLNESS (EPIDEMIC SOCIOGENIC ATTACKS) IN A VILLAGE IN LEBANON

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ABSTRACT : Mass psychogenic illness (epidemic sociogenic attacks/mass hysteria) refers to a rapid spread of well-described signs and symptoms affecting members of a group. It might be difficult to differentiate at first from illnesses due to infections, intoxications or "bio-terrorism." We investigated such an occurrence in a small village in Lebanon chronically under threat of war.

A 16-year-old single female, school student, was referred to Saint George Hospital University Medical Center, Beirut, for attacks of shortness of breath, muscle cramps, tremors and dizziness, for several days. She was referred because she was the first of eight cases from the same village to have similar symptoms. In parallel to an inpatient multidisciplinary evaluation and treatment, meetings were held with the crisis group comprising members of the hospital Psychiatry and Psychology Department, a public health representative of the Ministry of Health of Lebanon, physicians who were taking care of the other cases and a psychologist working in the area where these cases were declared. The diagnosis of mass psychogenic illness (epidemic sociogenic attacks) was reached. A common strategy was adopted in an effort to control the epidemic. Several explanations had been put forward initially by the community : bioterrorism, noxious fumes and "bad spirits."

At the time of writing this report – nine months later –, the epidemic, which had abated within six weeks, was still inactive.

Karam EG, Khattar LH. Maladie psychogène de masse (Epidémie d'attaques sociogéniques). J Med Liban 2007 ; 55 (2) : 112-115.

RÉSUMÉ : La maladie psychogène de masse (épidémie d'attaques sociogènes) fait référence à la propagation rapide de signes et symptômes bien décrits affectant les membres d'un même groupe. Elle est difficile à distinguer à première vue d'une maladie due à une infection, une intoxication ou au bio-terrorisme. Nous avons mené une enquête à ce propos dans un petit village au Liban soumis chroniquement au danger de guerre.

Une étudiante, célibataire, âgée de 16 ans, a été référée au Centre Hospitalier Universitaire Saint Georges, Beyrouth, pour des attaques caractérisées par des dyspnées associées à des crampes musculaires, des tremblements et vertige n'ayant pas été précédés par un stimulus apparent. Elle était la première d'un groupe de huit personnes à présenter ces symptômes dans un même village. Une équipe multidisciplinaire a évalué les cas. En parallèle et dans le but de contrôler l'épidémie, plusieurs rencontres ont eu lieu avec le représentant du ministère de la Santé, des médecins qui ont pris en charge les autres cas et une psychologue travaillant dans la région. Initialement, plusieurs explications avaient été avancées par la communauté : bioterrorisme, gaz toxiques et « mauvais esprits ».

A la date de la rédaction de ce rapport – neuf mois plus tard –, l'épidémie, qui a duré environ six semaines, était toujours inactive.

INTRODUCTION

Mass psychogenic illness (or epidemic sociogenic attacks, a newer proposed appellation), previously known as mass hysteria, refers to a rapid spread of well-described signs and symptoms affecting members of a group. It might unfold in different forms yet this illness exhibits repeatedly the following characteristics : a) sudden onset, b) immediate escalation and remission, c) prevalence increased among adolescent girls [1]. Several factors may at first be incriminated : cultural and religious beliefs as well as environmental toxicity and noxious fumes. These common explanations act frequently as catalysts even when other factors may be incriminated. More recently, a developmentally sensitive inherited allele has been proposed to have been enhanced during the Neolithic environment of evolutionary adaptedness and to be at the basis of this phenomenon [2]. Mass psychogenic illness occurs worldwide regardless of ethnicity, and can be effectively controlled through early diagnosis and intervention [3].

In March 2004, the Department of Psychiatry and Clinical Psychology at St George University Hospital Medical Center, Beirut, Lebanon, with the help of officials from the Ministry of Health of Lebanon and with several specialists, investigated symptoms occurring in eight young Lebanese living in the same village in Lebanon.

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CASE REPORT

A 16-year-old female was referred to the Department of Psychiatry and Clinical Psychology at St George University Medical Center (SGUHMC), Beirut, Lebanon/ University of Balamand, by the director of the Ministry of Health of Lebanon (Dr W.A), as a possible case of mass psychogenic illness.

Eighteen days prior to admission, she suddenly experienced difficulty breathing in school, followed 10 minutes later by dizziness, blurred vision, tinnitus, numbness and shaking tremors of all extremities, the whole attack lasting 30 minutes. There was no fear, no palpitations and the patient felt "*disoriented*," "*as if in a dream.*"

She was taken to several physicians who gave her oxygen to breathe and Diazepam, but attacks would recur a few hours later. These were increasingly preceded by coughing. She was transported to the local hospital along with her brother who started himself having attacks (two days after his sister). She was given Histamed® and Risperdal® (Risperidone). Her brother received no treatment and both were discharged home two days later, only for attacks to resume again on discharge and thus, both were re-admitted to the hospital where the workup (CBC, BUN, creatinine, electrolytes, magnesium and calcium levels, CXR) was reported to be normal. They were given Dexamethasone and Erythromycin for "suspicion of pertussis" without improvement. A spiritual healer was called by the family, who told them that this was due to a "*bad spirit*" ; he prayed and gave them an "amulet." The attacks kept occurring although reportedly less frequently.

Three other cases were declared in the village. Thus it was decided to transport the index/trigger patient to a specialized unit (the Psychiatry and Clinical Psychology Unit at SGUHMC) upon the recommendation of the Lebanese Ministry of Health because of possible "mass hysteria."

On admission, pulmonary and infectious diseases specialists were consulted. Sinus X-ray showed a mild left maxillary sinusitis, otherwise all exams including pulmonary function tests were normal. Non-psychiatric disorders were ruled out. The tentative diagnosis of panic attacks with dissociative reactions was put forward after consultation with other members of the Psychiatry and Psychology Department.

The patient was started on Paroxetine and was offered psychotherapy. She stayed at SGHUMC for eight days and during her day passes she had two more attacks : one while taking a shower and the other while talking to her cousin about the reason that made her decide to wear the religious veil.

She stated that before having these attacks she was in "*perfect*" health. However, her past history revealed intense fear of : airplanes, bombs, blood, death and dead people ; dreams about vampires and seeing (while awake) white ghosts wanting to kill her. She had frequently consulted a local religious healer for these dreams and decided after one of them to put on the religious veil ; subsequently the healer discoursed at great length about the horror times she would face upon her death if she ever removed it.

She thought there were three possible causes for her recent attacks : (1) Bad spirits were the primary culprits because, apparently, one day prior to the onset of the attacks, she got sick and washed her vomitus in the WC with water : She concluded that she thus harmed the spirits and they were hurting her back. She refused the idea that her attacks might be caused by her "nerves" and stated : *"If it is not the devil or bad spirits, then it may be* (2) *water toxicity"* carried out by the "enemy" [Israel]. This was shared by all other cases in the village. At one point the possibility of (3) bioterrorism (enriched uranium) by Israel was brought up by several inhabitants of the village.

What was sure was that a major stressor [war] was shared by all the community in question.

Three more cases were declared in her village bringing to 8 the total number of cases : 6 females and 2 males (aged 12 to 21). In all cases, and without any exception, a direct eye witnessing of attacks of another case had occurred.

The patient was seen once after discharge : She was not taking her medication and had consulted the religious healer again and reported that she was not having any more attacks.

All along, we formed a crisis group that consisted of the chief district physician (A.A.H), two physicians (A.F) and (S.J) who had seen the patients in the village and who had extensive knowledge about the intricacy of the situation, a public health representative of the Ministry of Health (N.G) and an experienced psychologist who visits regularly the region for consultation and treatment (M.G).

We shared our findings, and decided that one of us only (the chief district physician) would be responsible for the comments to the public including the mass media and to state the following: " The causes of these attacks are not known for sure, they are a result of interaction between the person (BOTH physical AND psychological) and his/her environment. The patients are not at risk of suffocation or death and these attacks will definitely resolve soon. Specialized care and attention will be given to all patients, and a team of experienced specialists is in charge."

In parallel, the other cases were seen locally by the physicians and psychologists of the crisis team (A.F., S.J., M.G., E.S.) and/or by experienced psychiatrists. The attacks were reported by these clinicians to display breathing difficulties and attempts by the subjects to overcome these difficulties.

Within six weeks from the start of the "epidemic", no new cases had emerged and no more attacks were reported by the patients.

DISCUSSION

The village where the cases came from had been under extreme global war stress for several years and more so for the preceding four years. (The location and the name of this village are not mentioned in this text for privacy). To our knowledge this is the first report of mass psychogenic illness (previously known as "mass hysteria") from Lebanon. Extensive research from our group had not identified such occurrences in the purely clinical or in the large or focused epidemiologic field studies [4-11].

As in all cases of mass psychogenic illness, this outbreak in a Lebanese village started suddenly and ended suddenly. The causes were identified as cultural "shared beliefs" [10]. As evident in an extensive review of the literature [2], symptoms are most common in younger individuals (< 20 y), females, indoor settings (classrooms) ; they are reported to occur preliminary in individuals who are in the line of sight of the index/trigger case, thus contagion is induced by proximity of affected and unaffected individuals and transmission is the " line of sight" [11]. The epidemic described here shows these typical characteristics.

Signs and symptoms exhibited by the 8 cases are quite common in mass psychogenic illness but could be different from one outbreak to another. The attitude of the Ministry of Health of Lebanon was commendably swift and decisive. The crisis team that managed the situation was effective and cohesive. In short, the management of this mass psychogenic illness might have been an important contributor to the control of the spread of the "epidemic" which is typically self-limited in time.

It is important to recognize and to respect (while not giving into necessarily) the local and cultural beliefs without confrontation yet with vigilance.

To date there are no plausible explanations for mass psychogenic illness. Tensions described in communities when mass psychogenic illness erupts point to what is commonly known as a vectorial theory : all the pressures within a specific community result in increased "pressure" on the more probable targets, the susceptible ones (including the index/trigger case).

Another more recent and very interesting theory evokes the evolution process of selection in favoring the expression of developmentally sensitive alleles (when gene expression is suppressed by androgens) which would have favored the survival of individuals who carried these alleles during Neolithic warfare signaling to "predator conspecifics" (attackers from other human tribes) that one does not represent a danger. The proponents of this theory [2] suggest that the term epidemic sociogenic attacks should be the official new term to describe these phenomena and be classified under the fear circuitry disorders of the new taxonomy of classification of psychiatric disorders (DSM V) [2]. The rise of evolutionary theories in the field of mental health has gained momentum more recently and point to the possibility that assortative mating might shift the severity of what were protective survival responses into the clinical and pathological range [12-13]. Although still theoretical, these explanations represent an interesting interface between individual genetics, groups under extreme stress (war) and the interaction with other personal mental characteristics.

LIMITATIONS

The authors did not examine themselves the other cases reported in this paper and thus relied on secondary sources. However, these secondary sources were all clinicians with well-established experience and were part of the crisis group described above.

CONCLUSION

Mass psychogenic illness (epidemic sociogenic attacks) has been demonstrated to occur in many countries around the world and might have existed throughout several periods of history. The case report we report here in Lebanon shares typical findings described in the international literature : early recognition and cohesive management might be essential ingredients of the containment of such epidemic.

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حالة من منشأ نفساني لمجموعة في قرية لبنانية

موجز : المرض النفسي الجماعي (وكان يطلق عليه سابقاً الهستريا الجماعية) يشير لانتشار سريع لعلامات واعراض معروفة، وذلك عند اصابة عدة اشخاص من مجموعة ما. من الصعب ظاهريا في البدء التفريق عن مرض انتاني او انسمام او ارهاب حيوي. اجرينا تحقيقا في هذا الموضوع في قرية لبنانية صغيرة كانت تحت ضغط الحرب لمرة طويلة :

عزباء عمرها ١٦ عاما تلميذة في مدرسة احيلت الى مستشفى القديس جاورجيوس الجامعي، في كلية الطب في جامعة البلمند، وذلك لحالة تتّصف بضيق نفس مشترك مع معص عضلي ورجفان ودوار. تم ذلك دون ان يسبقه اي حافز ظاهرياً. والحالة هي واحدة من مجموعة ٨ اشخاص ابدوا نفس الاعراض ومن ذات القرية. قيّم الحالة فريق متعدد الاختصاصات ولنفس الاتجاه : عدة لقاءات تمت مع مسؤولين من وزارة الصحة اللبنانية واطباء اخذوا على عاتقهم الحالات الاخرى مع اختصاصي نفساني عمل في القرية « الموبوءة » لمراقبة الوباء. في البدء قدمت عدة تفسيرات من قبل مجموعة القرويين : ارهاب حيوي، غازات سامة وسوء معتقدات. حاليا وبعد ٩ شهور، فالوباء الذي استمر ٦ اسابيع لم يندلع من جديد منذ ذلك الوقت ودون اية معالجة.