

POST COITAL ALLERGY – A CASE REPORT OF POST ORGASMIC ILLNESS SYNDROME

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POST COITAL ALLERGY-A CASE REPORT OF POST ORGASMIC ILLNESS SYNDROME (Abstract) The post-orgasmic illness syndrome (POIS) is a rare, but debilitating cluster of symptoms, occurring after ejaculation. The clinical case presented is a male patient, his complaints started after ejaculation, four years ago, with flu-like symptoms, feverishness and sweating, brain fog, muscle pain and heavy legs, followed by concentration and attention difficulties and irritation. This status last for about 5 to 7 days, disappear spontaneously after 3 days and reappear after the next ejaculation. This postcoital illness was worsening during the years. The clinical assessment and differentiation of the diagnosis was difficult and consisted in several clinical criteria, a functional test and allergy valuation. The combination of symptoms and pathophysiological mechanisms pointed to other sex related allergies, such as seminal plasma protein allergy. **Keywords:** SEMINAL PLASMA PROTEIN ALLERGY, POST ORGASMIC ILLNESS, SEXUAL DISTRESS.

The only universal in human sexuality is variability itself (1). During the last 5 years we have diagnosed and treated three different cases of sex allergy: latex allergy, seminal plasma allergy and, the most recent, post orgasmic illness syndrome (POIS). Sex and intimate contacts can represent a risk factor for allergic reactions, because they may favor direct contact with sensitizing substances(1).

Pathogenesis of POIS might include type 2 immune allergic reactions, but it does not necessary involve atopy (2). The mean serum total IgE in the non-atopic males was 27 kU/L (range 6-78 kU/L), indicating that in these men this immunological marker was normal (2).

Pathophysiology of POIS shows an immunological process which explains the

systemic reaction of the body and not only a local genital reaction, since only the immune system is capable of inducing very rapid and serious physical and mental symptoms (3). The support for an immunological cause of these flu-like complaints was found in reports on cytokines inducing a flu-like state (4, 5). There are two types of POIS, a primary type in which POIS is manifest from the first ejaculations in puberty or adolescence and a secondary type, in which POIS starts later in life (2, 6).

CASE REPORT

We present the case of a 34-year-old male patient, with a very demanding job, married young, heterosexual, with two healthy children. He had no intimate relationships with other women after getting

married.

The patient had two appointments at our clinic during the last 4 years, the first in 2014 and the second in 2017. He initially presented for a “strong dysphoric status after intercourse”, during the last months before his visit, “aggravating each time, from abdominal pain and nausea to generalized sickness”, to which obtundation, confusion and severe migraine were added.

The particularity of the case is that the patient had no obvious local or generalized allergic reaction, which can delay and even obscure the diagnosis. Previously he had consulted other doctors, urologists and internists, but the allergist was his last chance to have this mysterious disease diagnosed and treated.

Chief complaint: generalized post coital/post orgasmic illness over the last 4 years.

Past medical history: no history of allergy, high blood pressure (145/90 mm Hg), endoscopically diagnosed gastric ulcer, history of recurrent low urinary tract infections. The patient was asymptomatic at both consultations.

Family history: one of his children was diagnosed with atopic dermatitis. No family history of allergies or diabetes.

Current medication: occasionally, sedatives; he was using latex free condoms, with no influence on symptoms.

Self-observation and self-intervention: He was hiding the truth from his wife, refusing to deal with the problem as a couple. *He noticed that when he interrupted intercourse before reaching orgasm, symptoms did not appear.*

Physical exam: absence of physical signs or symptoms, no local or generalized eruption or swelling, normal blood pressure and pulse.

Lab tests showed a total IgE = 12 UI/L; seminal-fluid specific IgE = 45kUI/L (nor-

mal range < 0.35 kUI/L); CIC (Circulating Immune Complexes) = 45; serum complement = 570 UI; (++)presence of cryoglobulins

Skin prick test with his own semen resulted in a 14 mm wheal and erythema (+1), while patch test with his own semen was refused, as well as diamine oxidase (DAO) determination and the skin biopsy for mastocytosis.

Functional Diagnosis 1. A non-specific clinical test of POIS - advise the patient to stop masturbating or intercourse just before the first genital sensations of an impending ejaculation occur while having a full erection (2-17). 2. Difficult but clarifying: this is not easy to perform as one asks the patient to stop his sexual activity while having an increasing pleasure in this activity. POIS symptoms will not become manifest after this non-specific clinical diagnostic test.

Clinical diagnosis The five criteria of POIS are as follows: 1: One or more of the following symptoms: sensation of a flu-like state, extreme fatigue or exhaustion, muscle weakness, feverishness or sweating, mood disturbances and/or irritability, memory difficulties, concentration problems, incoherent speech, congested or runny watery nose, itchy eyes; 2: All symptoms occur immediately (e.g., seconds), soon (e.g., minutes), or within a few hours after ejaculation that is initiated by coitus, and/or masturbation, and/or spontaneously (e.g., during sleep); 3: Symptoms occur always or nearly always in more than 90% of ejaculation events; 4: Most of these symptoms last for about 2 to 7 days; 5: The symptoms disappear spontaneously.

Allergy diagnosis Skin prick test with autologous semen: the purpose was to objectify the skin reaction after inoculation of the semen using a protocolized intracutaneous (IC) skin-prick test. It was performed with the male's own semen (autologous

semen) and compared with a placebo skin reaction with IC saline 0.9% (6). The patient masturbated at home to produce semen. In hospital the harvested semen sample was defrosted and diluted with saline 0.9% to a concentration of 1:40,000. In addition, 0.05 mL of each dilution was IC injected at the volar side of the left forearm. The skin reaction to autologous semen and placebo were interpreted at 15 minutes after IC injections and found to be positive when the diameter of the wheal was > 5 mm with local erythema (6). The grading system of the skin reactions was as follows: I. wheal and erythema < 5 mm = negative; II. wheal 5-10 mm and erythema of 11-20 mm = 1+; III. wheal erythema of 21-30 mm = 2+; IV. erythema of 31-40 mm = 3+; and V. wheal > 15 mm or erythema of > 40 mm = 4+ (2, 6).

Positive Diagnosis Based on the functional (positive non ejaculatory test), allergy (+1 level) and clinical diagnosis (all 5 criteria were met), we made the following positive diagnosis, as being the most likely: 1. Post orgasmic illness syndrome type II (late onset) 2. Seminal Plasma Protein Allergy (SPPA) (autoimmune)

Differential diagnosis that can explain at least partially the clusters of symptoms included: 1. Seminal Plasma Protein Allergy (SPPA); 2. Systemic Mastocytosis; 3. Drug/Substance abuse; 4. Autoimmune disease with involvement of sexual activity; Unknown syndrome linked to sexual activity (other Rare forms of Post-coital Sickness).

Treatment consisted in desensitization with autologous semen. Since the patient score was +1 (wheal and erythema +14 mm), the treatment was postponed until the patient should accept a patch test and diamono oxidase (DAO) determination. All treatments should be performed in hospital and attentively surveyed by the allergist and

emergency care intervention, if needed. Desensitization is made with extremely diluted autologous semen (1/40,000), by gradually higher concentrations of autologous semen. Titration are to be performed according to local skin reactions post inoculation, aiming at a wheal and flare response of 3+. This score has to be maintained for a period of at least 2 years.

DISCUSSION

Clinical data from urology and andrology reported the post-orgasmic disease status at the beginning of 2000, especially in males and after ejaculation. There are only 50 cases around the world. From the three different cases of sexual allergy, latex allergy, seminal plasma allergy and post -orgasmic disease, the latter most challenged, because there is no objective local allergic reaction and all the symptoms are subjectively presented by the patient, not obvious to the physician. The only support is the patient's observation of the inventory and timing of clinical symptoms.

In this case, we benefited from a very patient and self-aware patient who self-intervening if he had given consistent help because he performed the functional test, stopped sexual intercourse before the first genital sensations of an imminent ejaculation, complete erection. The test was positive and gave us the certainty that the allergic reaction is due to autoimmune allergies to its own seminal fluid.

The first differential diagnosis was a co-existing one, because of the high specific IgE to his own seminal plasma protein, a range of 0-0.35kUI/L being the normal values accepted for absence of SSPA. Thus, the patient has a high degree of autoimmunity to his own seminal plasma protein. We can affirm that POIS include SSPA.

The second differential diagnosis was invalidated, because of the absence of ma-

major and/or minor criteria for mastocytosis. There were no obvious rashes or hematological changes in the number or morphology of mast cells. Also, there are no consistent data supporting the third differential diagnosis, as there was no history or clinical evidence of drug or other substance use, although clinical status was suggestive of intoxication. It is also important to establish any influence on males with POIS, of the 25-OH D vitamin deficiency, if we consider the epidemic character and the implications of this vitamin (7). Is it the semen or the seminal fluid? The question is which part of the ejaculate contains the antigen (Ag) that triggers the immunological reaction? Waldinger (3, 4, 5) reported the occurrence of POIS before and after sterilization in three men. This phenomenon means that the Ag is most likely not bound to the spermatozoa but associated with the seminal fluid. After sterilization, spermatozoa are no longer released into the genital system, but seminal fluid continues

to be produced, for example by the prostate and/or the seminal vesicles.

CONCLUSIONS

We have presented an allergy case with a certain immunotherapy status, that is not associated with elevated serum total IgE or urticaria but may be associated with an autoimmune reaction in the plasma protein in the fluid seed.

Indirect clinical evidence suggests that the Ag triggering the POIS systemic reaction is not bound to spermatozoa, but to seminal the fluid produced by prostate tissue.

The crucial benefit of the case is to point out the importance of self-observation and self-intervention of the patient with POIS, for there is no possible diagnosis of this rare disease, without the contribution of the patient, since all symptoms are invalidating and restricting the visit to a doctor and the possibility of an onsite immediate allergology evaluation.

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