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LETTER TO THE EDITOR

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Nonsteroidal anti-inflammatory drugs are effective against postorgasmic illness syndrome: A case report

Dear Editor,

A 28-year-old male visited our hospital due to problems he was experiencing after ejaculating. He had suffered from sweating, discomfort, fatigue, nasal discharge, headaches, and generalized erythema for several days since the first time he ejaculated at the age of 13. The symptoms were always induced after masturbation. He had no partner, had never had sexual intercourse, and experienced premature ejaculation. In addition, he had suffered from moderate atopic dermatitis (AD). Serum total IgE level was 415 IU/mL. He had been treated with antihistamines and herbal medicines for his symptoms after ejaculation, but they were ineffective. He was clinically diagnosed with postorgasmic illness syndrome (POIS), because his symptoms were consistent with the five diagnostic criteria described by Waldinger et al[1] (Table S1). We performed skin prick tests (SPT) and intradermal tests (IDT) according to the methods reported previously.[2] The SPT and IDT were conducted using autologous semen at dilutions of ×1 to ×1/10 000, and ×1/100 to ×1/10 000, respectively. It has been shown that SPT (×1 to ×1/10 000) and IDT (×1/1000 and ×1/10 000) reactions to autologous semen were not seen in control subjects.[2] In our case, SPT reactions were greatly increased at dilutions of ×1 to 1/100, and IDT reactions were observed at dilutions of ×1/100 to 1/1000 (Table 1 and Figure S1). These reactions continued for 1-2 days. We also measured the level of seminal fluid-specific IgE in the patient's serum using ImmunoCAP®, which was shown to be <0.100 UA/mL. Serum levels of antinuclear and anti-DNA antibodies were not detected.

Postorgasmic illness syndrome is a rare syndrome characterized by flu-like symptoms, which nearly always occur within 30-60 minutes after ejaculation and last for several days. POIS negatively affects the sex lives of patients, but there is no definitive treatment.[3] We treated our patient with the NSAID, diclofenac 25 mg twice a day, according to a previous report.[4] And his post-ejaculation symptoms disappeared completely. In addition, we defrosted previously acquired semen samples and performed SPT and IDT, using the abovementioned procedures, in order to confirm the effects of diclofenac. Skin reactions to autologous semen were reduced at 90 minutes after the oral administration of diclofenac 25 mg (Table 1 and Figure S2). Furthermore, the oral administration

TABLE 1 The results of skin tests to autologous semen

		Before diclofenac administration		Under diclofenac administration	
	Dilution	Wheal (mm), score	Erythema (mm)	Wheal (mm), score	Erythema (mm)
SPT	Histamine	5 × 5	24 × 20	7 × 5	27 × 25
	Saline	2 × 2	2 × 2	0 × 0	1 × 1
	1:1	4 × 3	7 × 5	3 × 3	6 × 4
	1:10	4 × 3	7 × 7	2 × 2	3 × 3
	1:100	3 × 3	5 × 4	0 × 0	3 × 2
	1:1000	2 × 2	3 × 3	0 × 0	2 × 2
	1:10 000	2 × 2	2 × 2	0 × 0	2 × 2
IDT	Saline	6 × 5	0 × 0	4 × 4	5 × 4
	1:100	10 × 9	33 × 27	7 × 6	14 × 12
	1:1000	9 × 9	22 × 20	6 × 6	0 × 0
	1:10 000	7 × 7	12 × 10	7 × 6	0 × 0

Note: The semen was intracutaneously inoculated on the volar side of the forearm. Skin reactions were interpreted at 15 min.

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of celecoxib 100 mg once a day was also effective against the patient's symptoms.

The mechanism underlying POIS is unknown. In our case, no semen-specific IgE was detected. Moreover, it has been previously reported that IgE immunoblotting of autologous seminal fluid sample revealed no IgE-binding bands.[2] Therefore, an IgE-mediated semen allergy might not be the mechanism underlying POIS. We also found that celecoxib was as effective as diclofenac. These findings indicate that POIS could be caused by inflammatory mediators that are inhibited in the cyclooxygenase (COX) 2 pathway by the administration of these drugs. Most of POIS patients had suffered from AD.[1] COX pathways were reported to be regulated differently in AD patients than in healthy volunteers.[5] It is suggested that the systemic regulation of COX responses causes the symptoms of POIS, especially in AD patients.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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SUPPORTING INFORMATION

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