

occurred in two cases; autoimmune hemolytic anemia plus alopecia totalis in one case (no. 3) and IgG and IgE anti-IgA autoantibodies in the other (no. 8). In addition, thyroid disease occurred in three cases (nos. 4, 5, 7), and urticaria in four cases (nos. 1, 4, 7, 8). However, these last two syndromes may be either immunologic or nonimmunologic in origin. Relevant also is a paper describing eosinopenia occurring in five patients with a combination of thymoma and hypogammaglobulinemia, but not in other patients with either condition alone (9).

There are, as yet, insufficient data to establish a significant association between eosinopenia and the various syndromes described in the cases summarized here. Instead, this report and review are presented to stimulate additional studies of the clinical associates of eosinopenia.

Key words: autoimmune diseases; basophils; eosinopenia; IgA deficiency.

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Conjunctivitis to thimerosal mistaken as hay fever

IN patients whose symptoms disappear during their vacation, even experienced allergologists would first think of an occupational origin. In the following case, we show that even with a clear personal history there might be pitfalls in diagnosis we have to be aware of.

■ A 26-year-old man presented with a 2-year history of repeated episodes of dermatitis, swelling of his eyelids, and "burning eyes". He had been treated with various antibiotic-containing eye-drops. When his ophthalmologist diagnosed epidemic conjunctivitis 18 months before, he received i.v. treatment with rocephine for 2 weeks. After that therapy, the symptoms completely resolved. Six months later, he suffered from the same symptoms and was treated again with i.v. rocephine and local thimerosal-containing eye-drops. The symptoms only partly resolved. At that time, the patient stopped working at a milling cutter, and his symptoms completely disappeared. Therefore, he thought he had an occupationally related illness. Nevertheless, 4 weeks later, after starting a different job at the same company, he suffered redness of the eyes and conjunctivitis within days. Finally, this led to an allergologic checkup, as suggested by his insurance company, on suspicion of an occupational allergy.

■ Skin prick tests (SPT) with routine inhalants were all negative. Patch tests were performed with

An apparent case of occupational allergy turned out to be one of contact allergy to thimerosal.

the European Standard Series, a disinfection and preservative series, a base preparation and emollient series, a drug series, a mechanical workers' series, and different thimerosal-containing eye-drops, using Finn chambers on

Scanpore fixed to the back for 48 h. Test sites were examined after 48, 72, and 96 h. Delayed-type hypersensitivities could be found for *p*-phenylenediamine (PPD), thimerosal, phenylmercuric borate, benzoyl peroxide, and thimerosal-containing eye-drops, which the patient used most. Therefore, this delayed-type contact allergy was the cause of the conjunctivitis and the eyelid eczema, as the eye

disorders disappeared after he stopped using thimerosal-containing eye-drops.

■ This case shows the importance of allergologic investigation in a patient who, in the intention to treat his conjunctivitis, promoted the disorder by providing the allergen twice a day. Especially in cases of additional dermatitis of the eyelids, the physician should always include contact sensitivity in the differential diagnosis. Thimerosal, an organic mercurial also known as merthiolate, is widely used as a preservative in vaccines, intracutaneous test solutions, and contact lens cleaners and creams. Delayed hypersensitivity to it is frequent even in healthy subjects, probably because of its use in all available vaccines for diphtheria, tetanus, and pertussis (1). However, contact conjunctivitis and contact dermatitis are quite rare. Thus, reading by epicutaneous testing, most positive patch-test reactions to this substance are clinically irrelevant (2).

The diagnosed delayed-type hypersensitivity to phenylmercuric borate in our patient may be interpreted as a cross-reaction because of the mercury compound in both allergens. Another reported cross-reactivity not studied in this patient is that between the sensitivity to thimerosal and photosensitivity to piroxicam, which might be important in patients who need this nonsteroidal anti-inflammatory drug (3).

An increase of delayed-type hypersensitization to thimerosal was seen in Austria after widespread use of merthiolate-preserved FSME vaccines (tick-borne encephalitis prophylaxis). The frequencies

reported varied from 1 to 18% depending on the studied group and country (4).

For every clinic offering hyposensitization therapy, it is important to know that standard allergen extracts also contain thimerosal as a preservative (5). Thus, it seems possible that during the treatment of type I hyposensitization, delayed-type hypersensitivity may be acquired.

Key words: conjunctivitis; contact dermatitis; merthiolate; thimerosal.

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