

Allergic contact dermatitis to triclosan-coated suture material

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We present a case of presumed allergic contact dermatitis (ACD) to triclosan-coated Vicryl Plus and Monocryl Plus suture material, causing breakdown of an abdominal wound.

CASE REPORT

A 53-year-old theatre nurse presented to our patch testing clinic. She had a history of atopy, with asthma, atopic dermatitis, and allergic rhinitis since childhood. She had a complex medical history, including endometriosis with bowel adhesions, and ruptured Achilles and hamstring tendons. She had previously tolerated tendon repairs using nylon and silk sutures; however, when she had a breast reduction, using triclosan-coated Monocryl Plus sutures, she developed redness and swelling at the surgical site.

She recently underwent an abdominal hysterectomy using triclosan-coated Vicryl Plus and Monocryl Plus sutures (Ethicon). Within 24 hours of surgery she developed redness and swelling at the surgical site, which progressed to breakdown of the wound. She was re-hospitalized for 8 weeks, underwent suture removal and multiple vacuum dressing changes under general anaesthesia. She subsequently developed a large abdominal hernia, which still requires repair. Patch testing revealed a positive reaction to triclosan 2% pet., and she was diagnosed with ACD to triclosan-coated sutures.

DISCUSSION

Triclosan is an antimicrobial agent which is commonly used in Australia in many personal care products, cleaning agents, and in the healthcare setting.¹ It is a known irritant to the skin, eyes, and respiratory tract in humans.¹ As a result of its widespread use, it has become ubiquitous in the environment and has been banned for use in household products in the United States by the Food and Drug Administration (FDA) because of concerns about antimicrobial resistance.²

Triclosan-coated absorbable sutures were first approved for use by the FDA in 2002 to reduce the risk of surgical site infection.³ Available varieties of triclosan-coated suture material include Vicryl Plus, Monocryl Plus and PDS Plus Antibacterial sutures.³ A recent systematic review and meta-analysis concluded that triclosan-coated

sutures were effective in reducing surgical site infections.⁴ The World Health Organization and Centers for Disease Control and Prevention guidelines for the prevention of surgical site infection recommend the use of triclosan-coated sutures, based on low-to-moderate quality evidence.^{5,6}

Triclosan has a low sensitizing potential and ACD is uncommon. In a retrospective analysis of 113 162 patients patch tested with triclosan 2% pet., a positive reaction was observed in only 363 patients (0.32%); however, 54% of positive reactions were considered clinically relevant.⁷ A review of the English-language literature revealed 1 case report of a delayed-type allergic reaction to triclosan-coated suture material.⁸ Our experience suggests that practitioners should consider the rare possibility of ACD to triclosan-coated suture material, in the setting of a post-operative skin reaction.

CONFLICTS OF INTEREST

The authors declare no potential conflicts of interest.

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