

Allergic Contact Dermatitis to a Urologic Lubricant

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Case Report

A 70-year-old woman with a 15-year history of urethral stenosis was being treated with periodic dilatation at the department of urology. Two days after her last sounding, performed at the emergency department, she developed a widespread pruritic erythematous edematous eruption on the thighs and in the vulvar region (Fig 1) as well as scattered lesions on her face and right hand. Braun Urological Lubricant (Braun Medica SA, Barcelona, Spain) (the 6 g size contains tetracaine, 0.045 g, and glycerin, 5.995 g) was applied as a lubricant at the end of the sounding.

What is your diagnosis?

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Contact Puzzle features brief case reports that illustrate dramatic and/or unusual examples of contact dermatitis. Submitted manuscripts should be a maximum of six pages printed in 12-point font, double spaced. Format includes Case Report, Diagnosis, Discussion, and References (six or less). A color photograph(s) of the clinical problem is required; color photograph(s) of patch-test results or ancillary test is optional.

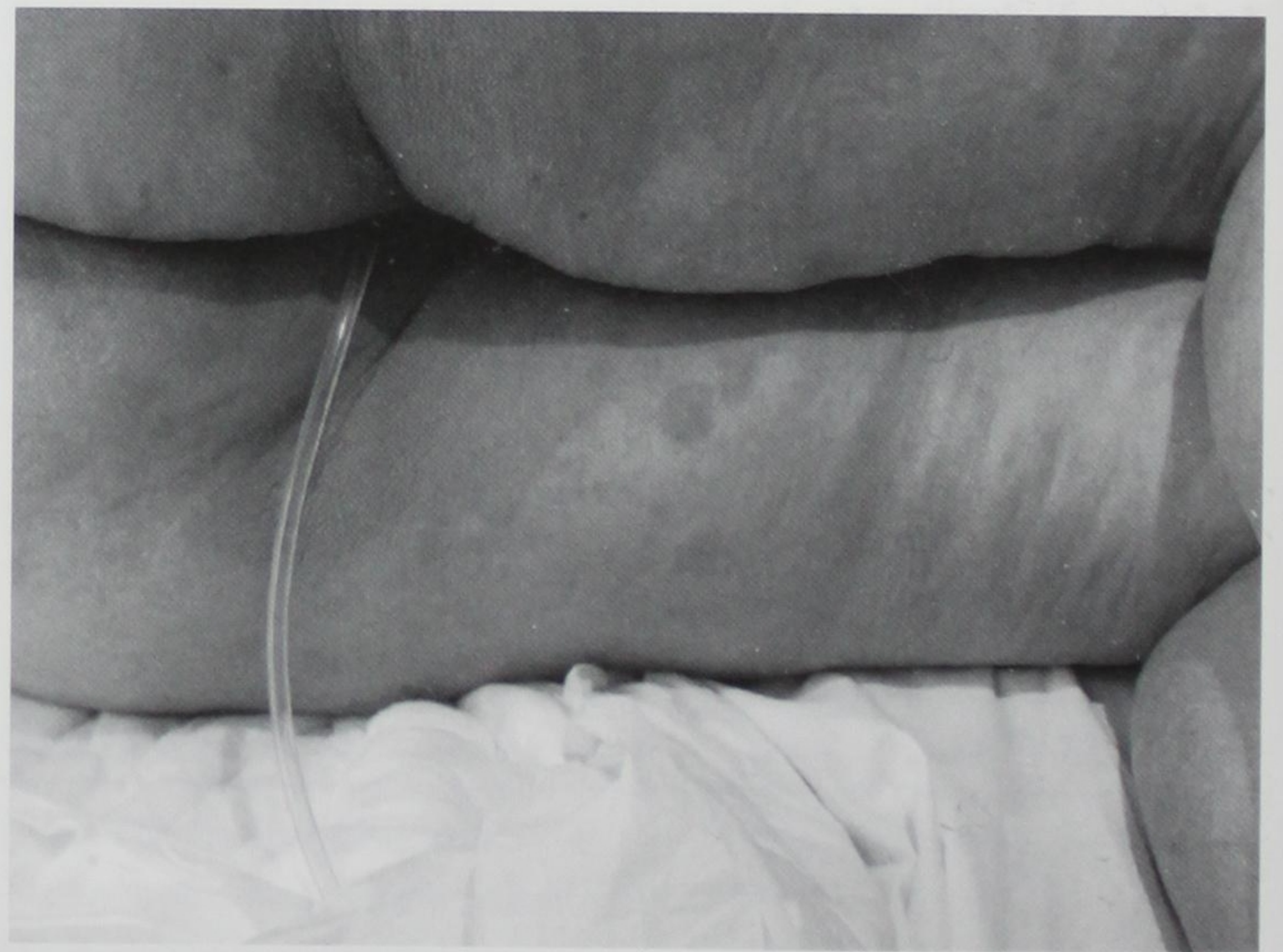


Figure 1. Erythematous edematous plaques on buttocks and posterior thighs.

Diagnosis

Allergic contact dermatitis caused by tetracaine in a urologic lubricant.

Discussion

The patient reported similar episodes of dermatitis in 1994 and 1997 after soundings at the emergency department, where Braun Urological Lubricant is usually used.

Results of prick tests and contact tests with latex were negative. Patch testing was performed with the Spanish (Grupo Español de Investigación de Dermatitis de Contacto) standard series, a rubber additives series (Chemotechnique Diagnostics, Vellinge, Sweden), a local anesthetic series (Table 1), portions of the sounding, and Braun Urologic Lubricant "as is" in Finn Chambers (Epitest Ltd Oy, Tuusula, Finland) on Scanpor tape (Norgesplaster A/S, Vennesla, Norway). Readings on days 2 and 4 showed positive reactions to caine mix (tetracaine, benzocaine, dibucaine [++], methylchloroisothiazolinone [++], tetracaine 5% in petrolatum [++]) and urologic lubricant (+++) (Fig 2). Following this investigation, the patient replaced the Braun Urological Lubricant with petrolatum and has since been symptom free.

Tetracaine (amethocaine) is an amino ester of para-aminobenzoic acid. It is a potential sensitizer and is commonly used as a local anesthetic for eyes, ears, mouth, throat, urethra, rectum, and anus. Occupational and non-occupational allergic contact dermatitis from tetracaine are not uncommon.^{1,2} Local anesthetics are increasingly being used by patients and medical personnel. Occupational contact dermatitis from tetracaine has been reported to occur among health care workers, including chiropodists, oculists, and dentists.¹⁻³ Tetracaine may also cause non-occupational sensitization.¹⁻³ In Spain, many pharmaceutical preparations contain tetracaine, and it is widely used as

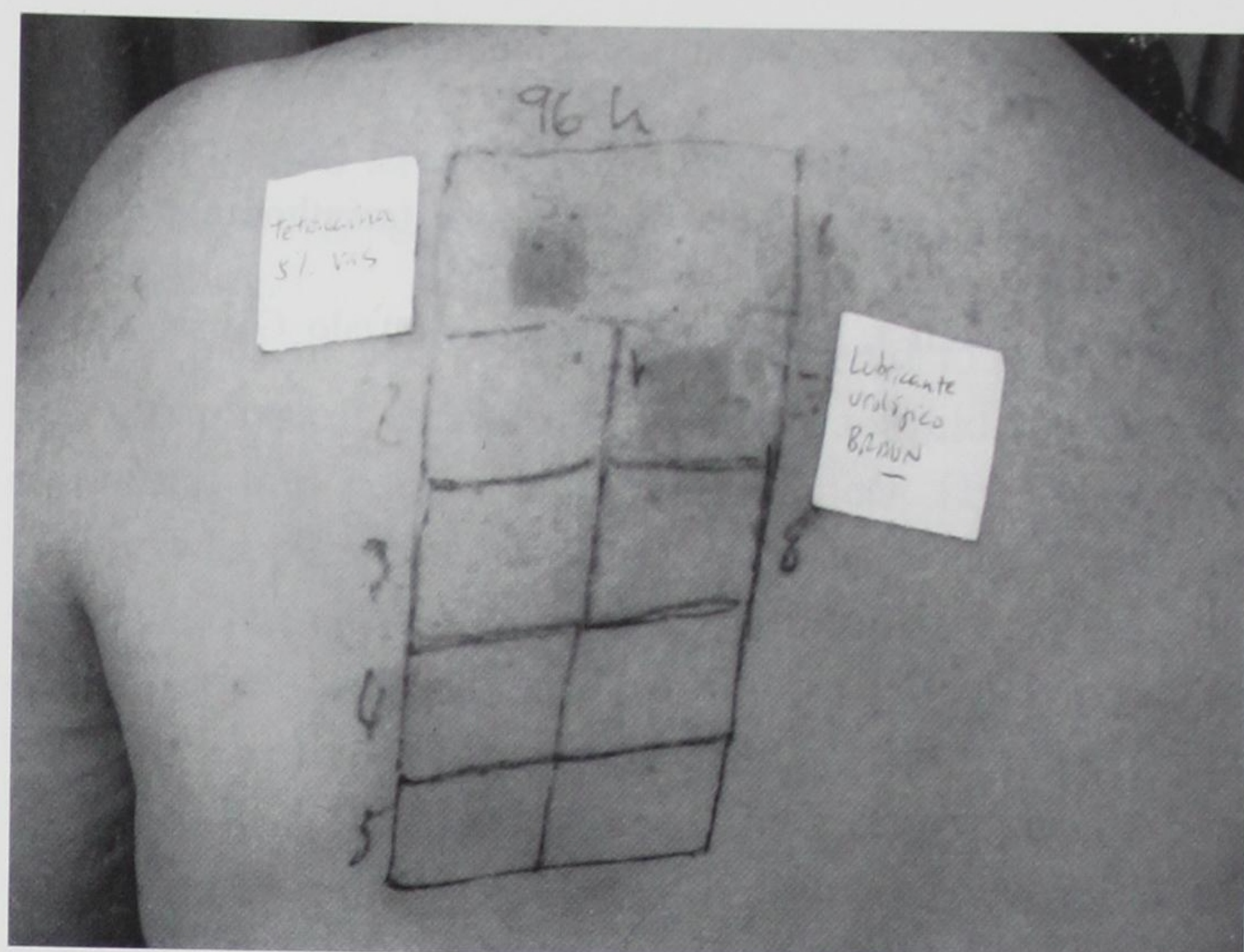


Figure 2. Positive patch-test reaction to tetracaine (5% in petrolatum) and Braun Urological Lubricant "as is" at 96 hours.

an anesthetic for eyes, ears, mouth, throat, and urethra, but not as an antihemorrhoidal ointment (as used by patients in the United Kingdom).²

The ester group of local anesthetics have similar chemical structures and are thought to cross-react. Kalverman and colleagues demonstrated that sensitization by tetracaine does facilitate cross-reaction to local anesthetics of the ester type although infrequently.⁴ Therefore, patients with a positive patch-test reaction to tetracaine should be tested with a local anesthetic series, either an ester or an amide group.

The vulva may be the site of both irritant reactions and allergic contact dermatitis, but allergic contact dermatitis from lubricant ointment in the genital area remains infrequent.⁵ In the last years, we have found some reported cases from Spain, similar to the case outlined here, related to allergic contact dermatitis from tetracaine contained in a urethral lubricant ointment.⁵⁻⁷ Likewise, in patients who have contact with lubricant ointment, tetracaine should be considered a potential allergen if dermatitis is present.

Table 1. Results of Patch Tests with Local Anesthetic Series

Local Anesthetic	Patch-Test Results (D2, D4)
Tetracaine, 5% pet	++
Benzocaine, 5% pet	—
Dibucaine, 5% pet	—
Lidocaine, 5% pet	—
Procaine, 1% pet	—
Prilocaine, 5% pet	—

D2 = day 2; D4 = day 4; pet = petrolatum.

References

- García Pérez A, Conde Salazar L, Guimaraens D, et al. La sensibilidad de contacto a ametoína. *Actas Dermosifiliogr* 1981;72: 441-8.
- Cronin E. *Contact dermatitis*. London: Churchill Livingstone; 1980. p. 193-202.
- Conde Salazar L, Llinas MG, Guimaraens D, Romero L. Occupational allergic contact dermatitis from amethocaine. *Contact Dermatitis* 1988;19:69-70.
- Kalverman K, Günnewing K, Wehling K, Forck G. Tetracaine

- allergy: cross-reactions with para-compounds? *Contact Dermatitis* 1978;4:376.
5. Sánchez-Pérez J, Córdoba S, Feal Cortizas C, García-Díez A. Allergic contact balanitis due to tetracaine (amethocaine) hydrochloride. *Contact Dermatitis* 1998;39:268.
6. Conde Salazar L, Cuerda Galindo E, Gonzalo González I, de Miguel Criado J. Eccema alérgico de contacto a tetracaína ¿profesional? *Actas Dermosifíogr* 2002;4:269-70.
7. Calzado Villarreal L, Ortiz-Frutos FJ, Sánchez Caminero MP, Vanaclocha Sebastián F. Perineal allergic contact dermatitis due to tetracaine in a urological lubricant. *Contact Dermatitis* 2004; 51:321-2.