ACETARSOL PESSARY DERMATITIS*

BY

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The rarity of serious toxic skin manifestations following the use of pentavalent arsenical compounds prompts me to record the following case.

Case Report

A married woman, aged 31, of a somewhat neurotic temperament, attended the Special Treatment Centre, Sheffield Royal Hospital, complaining of a vaginal discharge of 16 weeks' duration. She admitted an extra-marital risk with a casual male friend about 4 months previously. On examination she was found to be suffering from acute gonorrhoea, confirmed by culture. She was treated with procaine penicillin G in oil, 300,000 units intramuscularly. The blood Wassermann and Kahn tests were negative. Her husband was found to be suffering from a non-gonococcal urethritis.

She was put on routine surveillance and during this time *Trichomonas vaginalis* parasites were demonstrated in the vaginal discharge. Stovarsol pessaries ('S.V.C.' brand) were prescribed; to be inserted twice daily. This form of therapy was continued for 2 months and then reduced to one pessary on alternate days; 5 days later the patient returned to the clinic complaining of vulval irritation and of a rash on the backs of the hands, legs, and trunk of 3 days' duration. The rash, which caused moderate irritation especially at night, consisted of a symmetrical vesiculo-erythematous eruption involving the back of the hands, both axillae, cubital fossae, dorsal aspects of feet, and the vulva. There was no evidence of external parasites either pediculi or sarcoptes.

A tentative diagnosis of S.V.C. sensitivity was made and the pessaries discontinued. Calamine lotion was prescribed and Phenergan, one 25-mg. tablet twice daily, was given orally. As the condition was not severe the patient was requested to attend on the following day for further observation of the rash, but she did not return until 9 days later when she stated that 4 days previously her eyes had become swollen up, and almost completely closed, so that she could barely see, hence her inability to report. Now there was oedema of the eyelids and a generalized exfoliative dermatitis especially marked on the face, scalp, dorsal aspects of hands and feet, cubital fossae, and axillae (Figs 1 and 2). The temperature was 97° F., pulse 110/min., respirations within normal limits, urine normal. The patient complained of a sensation of chilliness. For domestic reasons she was not willing to be admitted to hospital.

Linimentum calaminae B.P. was prescribed and one

deep intramuscular injection of 2 ml. B.A.L. was given daily for 5 days. The day following the initiation of therapy the oedema of the eyelids became less marked and the skin was somewhat improved; 2 days later there was a dramatic improvement in the skin condition and the oedema of the eyelids had completely subsided. She continued to make steady, uninterrupted progress, and within a week the skin had practically returned to normal.

A patch test using an 'S.V.C.' pessary dissolved in distilled water gave a strongly positive reaction within 24 hours (Fig. 3), whereas a control using distilled water only was negative.

The patient continued to make satisfactory progress except that 7 days later she developed a large carbuncle in the right axilla. This was incised under a local anaesthetic and a large quantity of pus evacuated. A course of procaine penicillin G in oil 600,000 units daily for 5 days was given, and the carbuncle healed up satisfactorily. At no time did the urine contain any reducing substance.

Discussion

Despite the necessity for prolonged therapy in trichomonas vaginitis, the comparative rarity of serious skin reactions after the local use of Stovarsol compounds merits attention.

The facts that this patient was of a neurotic disposition and also had a mild seborrhoea of the scalp may have in some degree contributed to the occurrence of the severe skin reaction. She had used no arsenical preparations at any time before attending the clinic.

Campbell (1937) reported a case of exfoliative dermatitis which occurred in a female aged 38 years, 5 days after beginning to use Stovarsol pessaries vaginally for trichomonal infestation. She had shown intolerance to trivalent arsenic during treatment for sero-positive primary syphilis 11 years previously, having developed an exfoliative dermatitis after 3 g. neoarsphenamine. She presented an itching erythematous rash on the face, neck, trunk, and limbs, which was followed by desquamation, with thickening of the palmar skin.

Kesten (1938) reported five cases of acetarsol dermatitis, following intravaginal therapy for trichomonas infestation with a powder containing acetarsol. Sensitization occurred in four cases after prolonged, moderate treatment and in one

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FIG. 1

FIG. 2

FIG. 3

case after short, intensive treatment. In one case, severe generalized dermatitis indistinguishable from arsphenamine dermatitis resulted from persistence in acetarsol therapy after the first evidence of sensitization.

Michael (1929) reported a case of exfoliative dermatitis in a female aged 36 suffering from mucous colitis which was being treated with Acetarsone tablets orally, one tablet three times daily after meals. The exfoliative dermatitis appeared about 2 months after beginning Acetarsone therapy; the rash was universal, only the soles of the patient's feet remaining unaffected. There was an exudative dermatitis of face, neck, forearms, dorsum of hands, elbows, and genito-crural folds. The face was puffy, the eyelids were swollen, there was a seropurulent conjunctivitis, and the scalp was covered with a heaped-up scaly deposit. The skin condition cleared up on local therapy about 2 weeks after withdrawing the Acetarsone. The patient was discharged from hospital, but soon afterwards a further skin rash developed, and on

being questioned, the patient stated that she had taken two Acetarsone tablets orally contrary to medical directions, as she thought they would improve her condition. This rash quickly cleared up under local therapy. Michael was of the opinion that the exfoliative dermatitis resulting from Acetarsone is a milder disorder than that resulting from arsphenamines.

Nicolas and Rousset (1936) reported an unusual form of skin eruption following the intramuscular use of Stovarsol in the treatment of a case of late syphilis. The rash was pityriasiform and appeared on the buttocks and upper part of the thighs as an erythematous, squamous eruption of mixed formation, with small circular spots about the size of a sixpence surrounded by a clear-cut border, dark in colour, not raised, and with a fine scaly centre. The lips had the appearance of being congested but were not oedematous. An intradermal reaction using Stovarsol was negative. In spite of this the eruption was considered to be due to Stovarsol on account of the polymorphism of the rash which

enlarged by spreading, while the original lesions grouped themselves in a picture which is not common to other dermatoses.

Orchard (1951) reported a case of generalized erythema with oedema of the eyelids following the use of a Stovarsol vaginal compound ("S.V.C.") pessary for leucorrhoea in a syphilitic female who had 18 months previously developed an exfoliative dermatitis after being given 6 megaunits penicillin and seven injections of Stabilarisan over a period of 6 weeks.

Summary

A case of sensitization to a pentavalent arsenical following absorption through the vaginal mucous membrane is presented. The possible factors which may have contributed towards the development of this sensitization are discussed. The dramatic

response to local therapy and B.A.L. is noted and the relevant literature briefly discussed. Patients under treatment with intravaginal acetarsol pessaries should be observed at frequent intervals and the use of the pessaries should be promptly discontinued should such warning signs as the development of a local erythema of the external genitalia and thighs appear.

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