TABLE V

Clinical Response	Neomycin and Hydrocortisone (Senturia and Alford, 1954) (90 Patients)	Compound Solution (Present Trial) (34 Patients)
Considerable improvement*	38%	57%
Improved†	48%	34%
No improvement‡	14%	9%

According to Senturia and Alford's classification, * = excellent response, † = good and fair response, and ‡ = poor response.

The results reported confirm the usefulness of a combination of neomycin, polymyxin, and hydrocortisone. The combined antibacterial spectrum of these two antibiotics is shown to be particularly effective against the mixed flora of chronic ear infections. The addition of hydrocortisone, by virtue of its antipruritic action alone, plays an effective part in breaking the vicious circle of irritation-scratching-infection-irritation. Those who have relapsed after discontinuing the treatment inevitably complain of the return of the irritation, a symptom that is often impossible to cure but is readily controlled with periodic local application of hydrocortisone.

The usual methods of careful aural toilet and instillation of oily antiseptic drops—namely, aurist. hydrarg. nit. dil.—often suffice in the treatment of chronic ear infections. When this is unsuccessful and culture of the aural swab indicates the presence of *Ps. pyocyanea*, *Pr. vulgaris*, or *E. coli*, the use of this compound otic solution appears justified. It should not be regarded as a panacea, but it is without doubt valuable in cases refractory to other treatment.

Summary

Thirty-four patients with chronic ear infections were treated with a compound otic solution containing neomycin, polymyxin, and hydrocortisone in an aqueous base. A cure was effected in 13, 19 were improved, and there was no effect in two. The most satisfactory response occurred in cases of otitis externa. No toxic or sensitizing reactions were encountered.

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Malaria and its Control for Planters and Miners, Bulletin No. 7 in the series issued by the Industrial Advisory Committee of the Ross Institute, has recently been rewritten. In the foreword Professor G. MACDONALD explains that the continued improvements in the control of malaria in different parts of the world necessitate the frequent revision of such a handbook. The bulletin has sections on the different epidemiological types of malaria; conditions and carriers in some selected areas; principles of malaria control; residual insecticides, including resistance to insecticides; control of mosquito breeding; and drug prophylaxis. The section on insecticides includes photographs of pumps and sprays suitable for antimalarial use. The life cycles of the malaria parasite and the anopheline mosquito are also described. Copies of publications of the Ross Institute are available from the secretary of the Institute, London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1.

PRETIBIAL LESIONS

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The pretibial region is frequently the site of minor injury. It is poorly protected by clothing, especially in women, and even in obese subjects there is little subcutaneous fat. The deep fascia fuses with the anterior and medial borders of the tibia, further increasing the susceptibility to trauma. Swellings occurring after injury are usually lightly dismissed as haematomas. Though clinically resembling acute or chronic haematomas, such lesions, as the following case reports show, may be of more serious import.

Case 1

A housewife aged 30 complained of a painful swelling of eight months' duration over the anterior aspect of the right lower tibia. She stated that during the third trimester of her second pregnancy she sustained an injury to the right leg during the course of her housework. The injured area became swollen and discoloured, and these features persisted. Increasing pain a month before examination made her seek medical advice.

On examination a firm mass 1 cm. in diameter was found overlying the medial border of the tibia, just above the malleolus. It appeared to be attached to skin but not to underlying fascia, and the skin itself showed an erythrocyanotic colour. A few centimetres higher was a firm pea-sized nodule lying in the subcutaneous fat, independent of skin or deep fascia, and in the upper pretibial area a similar nodule was palpable. The regional lymph nodes were not abnormal.

The swelling was at first regarded as an organizing haematoma. An unsuccessful attempt was made to aspirate it. The mass was therefore excised, and it revealed soft greyish material. Histologically the specimen showed the features of an anaplastic tumour, the cellular type and distribution suggesting a non-pigmented naevocarcinoma (Fig. 1). Supracondylar amputation was carried out with block dissection of the inguinal nodes. The pathological report was as follows. The leg showed a subcutaneous haemor-

FIG. 1.—Case 1. Section showing anaplastic non-pigmented naevocarcinoma. (×60.)

rhagic mass about 1 cm. across, situated in the lower pretibial area. It was adherent to skin but not to underlying fascia, and the biopsy wound was well healed. A few centimetres higher there was an opaque white nodule a few millimetres in diameter, not adherent to skin or deep fascia, and in the upper pretibial area was a similar nodule. Histologically the lowermost nodule, previously reported as an anaplastic tumour, consisted of haemorrhagic granulation tissue. No recognizable tumour tissue was seen in the section examined. The middle nodule from the leg was a small well-localized cellular tumour which, although non-pigmented, showed the features of naevocarcinoma. The uppermost tumour was smaller, but proved to be of a similar nature.

Case 2

A housewife aged 32 was admitted to hospital because of a six-months-old swelling below the right knee following slight trauma. This had appeared almost overnight during her confinement with her second child. The tumour was at first painless, but a month later it became hot and tender, simulating an inflammatory lesion. It was incised, with the escape of some thick non-purulent debris, and healing rapidly occurred. However, the swelling recurred and she was referred for further treatment.

On examination a firm mass about 4 cm. in diameter was noted in the subcutaneous tissue of the upper pretibial area.

FIG. 2.—Case 2. Section showing fibrosarcoma possibly of neurogenic origin. ($\times 60$.)

It was not attached to skin. The surface was smooth, the edge ill-defined, and the overlying skin showed a bluish discoloration. Wide excision of the tumour was carried out. The pathological report showed that the tumour was highly cellular and composed of fasciculated spindle cells (Fig. 2). Much iron pigment was present in some areas. Mitoses were seen, but were not unduly abundant. The appearances were those of a fibrosarcoma possibly of neurogenic origin. The tumour extended locally down to sub-jacent fascia, but the muscle was not invaded.

Case 3

A girl aged 16 sustained an injury to the right leg in the lower pretibial region as a result of a motor-car accident. Bruising and swelling occurred, and as these subsided a painless swelling was noted beneath the skin. Persistence of the swelling for three months made her seek surgical treatment.

On examination a firm mass 2 cm. in diameter was found over the anterior surface of the tibia at the junction of the middle and lower thirds. It was not attached to skin or deep fascia, and the skin was of normal texture. The tumour was excised. The pathological report indicated that

FIG. 3.—Case 3. Section showing capsule of cyst and gelatinous contents. ($\times 40$.)

the tumour was cystic and contained pale yellow gelatinous material. The wall consisted of dense fibrous tissue without epithelial lining and contained no glandular elements. The lesion was not identifiable as a haematoma having regard to the small amount of iron demonstrated. Indeed, its precise histogenesis remained in doubt (Fig. 3).

Five months later another tumour appeared at the site of the scar and this was also excised, with the following histological characteristics. The specimen had a pseudocystic appearance, having a wall of dense fibrous tissue and containing much fibrin, some red blood corpuscles, and cells which were mainly mononuclear in type. The diagnosis seemed to rest between an organizing haematoma and a varix, and, as special stains have failed to reveal any evidence of muscle in the wall, the diagnosis of haematoma seems more likely.

Comment

The role of trauma in the aetiology of cancer has been the subject of much debate. Although chronic irritation of skin or mucous membrane is sometimes followed by neoplastic change, the general opinion is that a single traumatic episode will not promote neoplasia in normal tissue (Stewart, 1947, 1954; Kotin and Kahler, 1953; Pedden, 1953).

In the above cases trauma was definite in two and doubtful in one. In Case 3 no satisfactory interpretation of the histology was forthcoming, but the fact that the tumour recurred after adequate excision may be of some significance. In the other two cases the lesions were malignant. None of the patients suffered from chronic irritation, and because of pregnancy two had been medically examined a few weeks prior to the appearance of the tumour. It is of interest that in all three cases the lesions resembled haematomas clinically, and were diagnosed initially as such.

Conclusion

Three cases with pretibial lesions are described. Tumours appearing and persisting after trauma should not be lightly dismissed as organizing haematomas, for they are occasionally of a more serious nature.

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