

The failure of oxyteroylglutamic acid to function as a folic acid displacing agent in the system studied is particularly interesting in view of the effectiveness of oxythiamine (4) as a thiamine displacing agent. The amino group position in one case is probably of vital functional importance and in the case of folic acid of relatively slight significance. The 2 position on the pteridyl radical would seem to present a contrast to the 7 position inasmuch as 7-methyl pteroylglutamic acid is a highly effective agent. It is impossible to offer an explanation of the action of the quinoxaline compound which in itself possesses vitamin ac-

tivity. The capacity for displacement possessed by the aspartic acid analogue seems to place the glutamic-aspartic replacement system on a firm basis in view of the effectiveness of seryl glycyl aspartic acid in displacing seryl glycyl glutamic acid (5).

SUMMARY

7-Methyl pteroylglutamic, 7-methyl pteric, pteroyl-aspartic and 7-methyl pteroylaspartic acids are effective displacing agents for pteroylglutamic acid. Oxyteroylglutamic and oxyptericoic acids are inactive in the system studied.

R E F E R E N C E S

1. Martin, G. J., Tolman, Leo and Moss, Jack.; Arch. Biochem. 12, 318, 1947.
2. Mitchell, H. K. and Snell, Esmond E.; Univ. Texas Pub. No. 4137, 36, 1941.
3. Martin, G. J., Moss, Jack and Avakian, Souren; J. Biol. Chem., 167, 737, 1947.
4. Soodak, M. and Cerecedo, L. R.; J. Am. Chem. Soc. 66, 1988, 1944.
5. Woolley, D. W.; J. Biol. Chem., 166, 783, 1946.

The Management of Pruritus Ani in the Armed Forces

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PERI-ANAL ITCHING among Army personnel, by necessity, had to be treated in such manner as to afford maximum relief with a minimum loss of time from active duty.

Every effort was first made to find the causative agents. Anal pathology such as marginal ulcers, fissures, hemorrhoids, cryptitis or papillae were surgically removed. Each patient was questioned for possible sensitivity to specific ingested material or to contact agents. In order of their frequencies, citrus fruits, their juices, wheat products, beer, tobacco and soap were found to be the most frequent inciting substances. Dietary corrections could be made only to a limited degree.

Eighty-six per cent of those suffering from chronic peri-anal itching also had moderate to severe dermatophytic involvement of the interdigital spaces of the feet. These were treated on an ambulant basis. Once each week these patients had the involved portions of their feet painted with a six per cent mixture of salicylic acid in equal parts of alcohol and compound tincture of benzoin. The peri-anal skin was moistened with water and the pruritic parts painted with an indelible pencil. The crystalline gentian violet of the pencil readily penetrates the chorionic layers of the skin. It is not painful when used in this manner and is an admirable antiseptic and fungicidal agent. Used more often, this dye can be sufficiently caustic to

produce painful burns. Self medication is limited to the use of cold water, half-strength witch-hazel or Burrough's solution. A bland ointment was prescribed to dry the parts and allay the itching; the following to be used before retiring:

<i>Menthol</i>	<i>one grain</i>
<i>Aluminum Sulfate</i>	<i>three grains</i>
<i>Starch</i>	
<i>Zinc Oxide, pulverized</i>	<i>aa two drams</i>
<i>10% Benzocaine Ointment</i>	
<i>Aquaphor</i>	<i>aa q. s. a. d. one ounce</i>

One of the important phases of this treatment was to instruct the patients in their own care. The use of toilet tissue was strictly prohibited. Soft, disposable cleansing tissue or cotton was substituted. The feet and inter-crual areas must be thoroughly dried after bathing. If intractable itching did occur, pinching was advised instead of scratching in order to minimize trauma to the skin

CONCLUSIONS

During a three year period in an Army medical installation* only one was so refractory to all treatment that he had to be discharged from service. Six others were tattooed with cinnabar with minimal results. Subcutaneous injection of oil soluble anesthetic gave temporary relief in four cases and sub-cutaneous neurotomy was performed in two. The treatment outlined proved to be highly effective in the majority of cases.

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