

Virus Tumours in Animals

SIR.—In connexion with your annotation on the above in the *Journal* of August 24 (p. 265), it is appropriate to quote a passage from a letter by myself in the *Journal* of March 26, 1938 (p. 698). Speaking of Rous's work on Shope's rabbit tumour I say: "We have here a case in which a particulate virus, in the fulfilment of its destiny inside the epithelial cells of the rabbit, irritates and stimulates them, causing thereby an increase of their functional activity, which is followed by a multiplication of the cells themselves. At first, owing to the cell proliferation, there is formed a simple papilloma, which is capable of malignant transformation when more prolonged irritation (the 'remote' cause) produces a genic mutation, which then becomes the 'proximate' cause of the subsequent permanent malignant state of the cells. . . . As long as the condition remains in the simple papillomatous stage there is little necrosis of the epithelial cells, therefore little escape of the virus into the tissues, and hence little formation of antibodies against it. With carcinomatous change, however, there is considerable necrosis, considerable escape of the virus, and, as Rous has shown, though not in this context, the formation of antibodies against the virus. It should not be surprising if, after the process of trituration of such a tumour for the purpose of preparing an emulsion for filtration—in which case the liberated virus must come in contact with the antibodies of blood and tissues—a filtrate is obtained which on inoculation is completely inactive."

Obviously this extract has a considerable bearing on some aspects of your discussion, but I confine my remarks to one point. From the information you supply it would seem that one of my suggestions (regarding the presence of antibody in the tumour) has been substantiated.—I am, etc.,

Aberdeen, Aug. 28.

J. P. MCGOWAN.

Cause of Appendicitis

SIR.—Dr. E. Sakoschansky's letter in your issue of August 24 (p. 267) revives memories of various correspondences in the latter years of last century and the early years of this in which I took part. Neither the general increase in our knowledge nor my own limited further experience has caused any material change in the views I expressed then. Put dogmatically those views were and are:

(1) A normal appendix rarely becomes acutely inflamed; an acutely inflamed appendix almost always presents some evidences of previous morbidity, and the history of the patient, when it can be thoroughly investigated, almost always reveals evidence of abdominal trouble in past years, generally in infancy or childhood.

(2) The immediate cause of the acute attack is trauma, either external, as suggested by Dr. Sakoschansky in his last paragraph, or internal, such as foreign bodies, undigested food, faecal accumulations, or stercoliths in the caecum. Gout, rheumatism, and some other chronic conditions or tendencies have been blamed for acute attacks, but it is much more reasonable to regard a morbid appendix as at least a contributory factor in the development of these conditions than to regard it as the result of them. Acute fevers like influenza have also been blamed, and the chills which accompany them may possibly be the immediate traumatic agent.

(3) Trauma is also the cause of the morbidity which ends in an acute attack, and this trauma occurs usually in infancy or childhood, though it may occur later. The seeds of appendicitis are sown generally in the cradle, fairly often during early childhood before the second dentition is complete, and more rarely in later life, and those seeds are improper foods—that is, foods which cannot be properly digested and absorbed by the developing but undeveloped apparatus available at the different ages. The fashion of denying babies their natural food and substituting "patent" foods (just as good!) came into vogue in the middle of the last century, first among the upper classes, then in the middle, and eventually in the working class, and in due course appendicitis, almost an epidemic, began to take its toll, first among the younger adults and children and, as time went on, among the middle-aged and elderly who had been born during the prevalence of that vogue. Along with this fashion there was a growing carelessness about the diet of the elder "babies,"

and those who escaped the ravages of hard curds in the cradle were subjected to the ravages of fried fish, hard ham, potato chips, and similar dainties long before they could deal with them effectively; hence natural feeding in infancy is not a complete safeguard against appendicitis in after-life. Unfortunately the reaction towards natural feeding in the cradle has not yet been followed to any great extent by a similar reaction in the case of the older children. If and when such a reaction does occur appendicitis will, in the course of a generation or so, become rare, as it was a century ago. It is a mechanical or physical rather than a chemical question. No amount of vitamin added to hard curds, fish, ham, chips, etc., will prevent those foods from irritating a child's appendix, and repeated irritation produces morbidity of one kind or another, and paves the way to appendicitis.

I have a strong impression, which may be quite wrong, that there is much less appendicitis about than there was in my young days. If I am right I attribute this chiefly to the reaction in favour of breast-feeding, but partly also to the attention now given to the teeth of young children, neither of which has yet had time to produce its full effects. If I am wrong I suppose we shall still have to find some more vitamins, but in the meantime it would be quite worth while to continue to study the mechanical agencies involved and insist on the necessity for children to have food physically as well as chemically appropriate to their digestive apparatus.—I am, etc.,

Ambleside, Aug. 26.

J. PRICE WILLIAMS, M.D.

Haematuria after Streptococcal Infection

SIR.—Quite recently in this area we have had a considerable number of cases of haematuria, in some instances following an obvious tonsillitis. The majority of the cases have been in quite young children, but three or four have occurred in adult females. These patients seem remarkably well and are able in the initial stages to attend the surgery. After treatment in bed on diet and liquids and, if necessary, alkalis the condition clears up. The patients, despite exhaustive clinical examination, which shows negative results so far as disease goes, are obviously not fit persons. This may be due to the rather strict diet, since they improve when the diet is increased in gradual stages to a very normal average diet.

The interest to me is that the last time I saw a series of cases of this nature was in Wolverhampton, when the condition was concurrent with a severe whooping-cough epidemic. The only germ that seems common to these present cases is a streptococcus, which, owing to the war, has not been typed. The cases I have handled have not proved fatal, and indeed have not had any high temperature or signs of an acute inflammatory reaction.

If anyone else has a similar experience I would be pleased to know, especially since I am unaware of any help as to ultimate prognosis (for example, literature). I would like to follow this up.—I am, etc.,

Torpoint, Cornwall, Aug. 30.

GEO. S. ASTON.

Sulphonamides in Treatment of Bacillary Dysentery

SIR.—In your issue of June 22 (p. 1023), in an article on bacillary dysentery in war, you state *inter alia*: "Up to the present the sulphonamide group of drugs does not appear to have been used in the treatment of acute bacillary dysentery in man." In this part of the world we see quite a number of cases of this formidable infection at certain seasons, and during the past year I have personally employed soluseptasine and proseptasine (M & B) in the treatment of seven authenticated cases. All were checked up with laboratory stool culture and tests through the sugars. Three were returned as Flexner, two Morgan, one *asiaticus*, and one pseudo *carolinus*.

The results of treatment have been more than encouraging, and all seven patients, who were showing the usual picture of high temperature, frequent stools with blood, mucus, pus, etc., were back to a normal state of bowel action within ten days of the institution of treatment. Subsequent stool culture in each individual case showed no evidence of persistence of infection, and continued clinical well-being confirmed this. Dosage was 5 c.cm. soluseptasine parenterally daily, combined with six tabloids orally for five days.