virus") into a mouse can nevertheless bring about a sarcomatous transformation of the supporting stroma? And how, especially in view of this last query, does he regard the fact that no such agent or virus has so far been found in epithelial tumours in spite of intense search for such a body?

The reasons for my asking these questions will be found in an article (with references) by myself in the *Edinburgh Medical Journal* (1941, 48, 305).—I am, etc.,

Aberdeen.

J. P. MCGOWAN.

Ankylosing Spondylitis

SIR,—I was sorry to see the suggestion put forward by Dr. C. B. Heald (March 26, p. 546) that it is possible to arrest spondylitis deformans by x-ray treatment given early in the course of the disease. I do not believe that this is ever possible, but the patient (if he is already in his thirties when first attacked—an age when the evolution of the condition is usually slow) may have to be kept under observation for several years before recrudescence of symptoms and extension of the physical signs become manifest.

At St. Thomas's Hospital all patients found by me to show clinical signs of subacute sacro-iliac arthritis are treated at once by radiotherapy. This has meant that some cases have completed the course of x-ray treatment at a time when no radiological signs of any disorder were yet discernible. Nevertheless, within one to two years the other sacro-iliac joint was attacked and the typical sclerosis had now appeared on the radiograph of the joint first affected.

It is obviously impossible to start treatment earlier than during the clinical and pre-radiological stage of sacro-iliac invasion. Failure to arrest the disease even in such favourable circumstances shows that x-ray therapy, however effective it proves in abolishing pain (at times for several years), is palliative, not curative.—I am, etc.,

London, W.1.

JAMES CYRIAX.

SIR,—Dr. C. B. Heald (March 26, p. 546) raises several most interesting points. He lays stress on the value of early x-ray examination of the sacro-iliac joints and suggests that more frequent early examination of these joints would lead frequently to a much-needed earlier diagnosis in this condition. This is very true. But apart from radiological diagnosis it is amazing how long such patients can suffer, openly and obviously, from ankylosing spondylitis and still escape the notice of the clinician whose eye is only open to diseases of more popular systems.

The most obvious cases are missed frequently in busy out-patient departments even though the complaint that took that patient to hospital may have been directly due to spondylitis. The following history is by no means unusual.

A man, now aged 56 years, suffered his first symptoms while in the trenches in 1916 at the age of 22. He experienced great pain in the buttocks, the right more than the left, which greatly interfered with his walking. Alternating "sciatic" pains and stiffness and pain in the left shoulder further incapacitated him. He received little sympathy and no treatment. The condition worsening, he was finally discharged from the Army as a man of poor moral fibre. From that time on relapse and remission alternated, though the latter never lasted longer than three months at a time. Any change of weather upset him; usually the cold suited him better than the heat. His spine gradually became flexed, his chest sunken, and his abdomen lax and atonic. Feelings "as though bands were pulling tight round the chest" became a major symptom. At no time were peripheral joints affected. He attended hospital several times and was seen in 1947 in a general medical out-patient department of a teaching hospital, where notes read that he was complaining of tight feelings round the chest, that his chest expansion at nipple level was only 1 in. (2.5 cm.), and that he was suffering from bronchitis and emphysema. On Nov. 30, 1948, 32 years after his first symptoms, the correct diagnosis was first made in a case so obvious that it could have been diagnosed across the Horse Guards Parade.

Such a history is not unusual. But no clinician who will not notice the obvious will bother to order a skiagram of the sacro-iliac joints. Ankylosing spondylitis is a condition that is often just not considered in the differential diagnosis of exertional dyspnoea, transient or persistent backache, alternating sciatic pains, sternal pains and tenderness, or even pyrexia of unknown origin. In our ex-Service patients the average time between onset of symptoms and correct diagnosis is 2 years

11 months; in our civilian cases it is nearer three times that figure. Yet few patients give such typical histories or show such obvious physical signs.—I am, etc.,

London, W.1.

F. DUDLEY HART.

SIR,—The enthusiasm of your correspondent, Dr. C. B. Heald (March 26, p. 546), for the early diagnosis and x-ray treatment of ankylosing spondylitis needs tempering. If he consults the literature of the disease, which comprises some hundreds of papers, he will discover that success was usually claimed in the treatment of early cases before x-ray therapy became popular.¹⁻⁴ He will also find that there is no evidence that deep x-ray therapy arrests the disease, though it does appear to relieve the pain, at least temporarily, in most cases.

That the sacro-iliac joints should be studied for early diagnosis has been advocated for at least twenty years.⁵ Buckley⁶ was the first worker in this country to draw attention to the early changes in the sacro-iliac joints. Dr. Heald refers to "this crippling disease" which affects the "most normal healthy physiques." These two ideas were popularized in Gilbert Scott's monograph,⁷ which in my opinion contains many other unsubstantiated statements. Only some 10 to 20% of patients seen in general hospital practice can be described as "cripples," and the disease affects people of most diverse physiques.

If we had a cure for the disease and money to spare, Dr. Heald suggested mass miniature radiography of the sacro-iliac joints of young adults might be worth while. As it is, we cannot afford to deal with the far graver matter of pulmonary tuberculosis. Dr. Heald speaks of the x-ray changes being "so diagnostically significant." Personally, in studying large films of the sacro-iliac joints of patients' relatives who have suggestive symptoms (such as the pre-spondylitic thigh pains described by Davies-Colley in 1885⁸), using the radiographs of some 40 normal students as controls, I often find it difficult to decide whether the appearances are significant or not.

Finally, Dr. Heald approves of a skin dose of 2,500 r. I doubt whether one is ever justified in irradiating the sacro-iliac joints of a young woman with such a dose unless harmful effects on the ovaries can be avoided with certainty.—I am, etc.,

Bristol.

H. F. WEST.

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Obstetrics in Great Britain and Ireland

SIR,—The statement of Dr. Bethel Solomons (March 26, p. 545) "that from an obstetrical point of view we consider that Great Britain and Ireland are one" is so completely at variance with the facts that I cannot let it pass without the strongest protest. As an ex-assistant-master of the National Maternity Hospital, Dublin, I know that the practice of obstetrics in relation to such matters as (1) so-called therapeutic abortion, (2) craniotomy, and (3) sterilization is the direct contrary to that obtaining in many centres in this country. Convinced as I am from the medical point of view—apart altogether from ethics—that such operations are not necessary in the best interests of patients, I feel that the practice of obstetrics in England would be greatly improved by the adoption of the Irish practice in relation to these various matters. However, the point is that these fundamental differences in the practice of obstetrics in England and Ireland do exist, and no one knows this fact better than Dr. Solomons; therefore his statement quoted at the outset of this letter is misleading and gives a wrong impression of obstetrics as practised in Ireland.—I am, etc.,

Sheffield.

TIM BOLAND.

Fulminating Meningococcal Septicaemia

SIR,—I was interested in the article by Drs. P. Turner and R. V. Dent on fulminating meningococcal septicaemia (March 26, p. 524), more especially because I recorded findings in a series of 173 cases of meningococcal infection occurring in a recruiting depot in East Africa.¹