CHEST SCREENING IN THE ANTE-NATAL CLINIC

BY

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At the beginning of 1943 it was decided to institute a screen examination of the chest for all women attending the ante-natal department of Paddington Hospital, as part of the routine general examination which they undergo. This was organized by the maternity department and the medical department in co-operation, with the help of the radiographic staff.

The Procedure

At her first attendance in the ante-natal department each expectant mother is given an appointment in the following week, and it was found that a single weekly screening session of 30 to 45 minutes enables the work to be covered without difficulty. With very few exceptions the mothers much appreciate this service and attend punctually, so that organization has been easy and has made very little demand on the hospital staff. The screening has always been done by the same person, and our practice has been to order full-size films in all cases where the screen examination reveals any abnormality of importance. For this purpose calcified foci have been included only when extensive, multiple, or accompanied by other shadows—the common small and compact Ghon focus or calcified gland focus being “passed” on the screen examination alone.

The scheme has now been in operation for a year, with an average weekly attendance of 20 to 30 women. We publish the following summary of the results as an indication of the possibilities of the method.

Total number screened in 1943	1,125
Total number of films ordered	63
Findings in the films:	
No abnormality	22
Active tuberculosis	6
Pleural effusion	1
Unilateral phthisis	1
Bilateral phthisis	4
Possibly active tuberculosis	2
Probably inactive tuberculosis or doubtful tuberculosis	9
Calcification shadows	11
Non-tuberculous changes:	
Increased vascular shadows, general	6
Increased vascular shadows, local	2
Pleural or pleuro-pericardial adhesions	2
Miscellaneous:	3
? Benign pleural neoplasm	1
Partial collapse, ? cause	1
Anatomical anomaly of ribs	1
Approx. percentages of tuberculous disease out of total screened:	
Active, requiring immediate admission	0.5%
Possibly active, requiring close observation	0.2%
Probably inactive or not definitely tuberculous, but requiring observation	0.8%

For comparison with these figures we may take the findings in a group of women of roughly comparable age reported by Clive (1943). These were W.A.A.F. personnel, a group of 30,000, ages 17½ to 45, examined by miniature radiography. Clive found that 0.4% required immediate institutional treatment for tuberculosis and 0.6% required observation, of whom 0.2% were later found to need institutional treatment. Our figures appear to be very similar to these.

Comment

The principle of mass investigation—searching for cases of tuberculosis among the apparently healthy—which has been quite extensively employed in some other countries since the last war, is gaining increasing adherence in this country. So far it has largely been confined to special groups of the population, such as nurses and medical students, who appear to be particularly exposed to the risk of tuberculosis, or those whose health is of special importance and who are organized in groups which make investigation relatively easy—e.g., Service

personnel. We think it is clear that pregnant women fall into the latter category, if not into the former, and the use of x rays in their supervision is both highly desirable and easily practicable. While we are prepared to agree at once that the most suitable method of mass investigation is by miniature radiography, we think that until apparatus for this becomes universally available (which is likely to be a considerable time) the possibilities of screen examination are by no means to be despised. It is clear that this method will reveal a number of cases of unsuspected tuberculosis comparable with, if not fully equal to, that found by miniature radiography, and it has the very great advantage of universal availability. Nearly every general hospital which does ante-natal work has a screen apparatus, and a simple system of collaboration between local authorities and hospitals, both voluntary and municipal, would make it possible to examine also those women who attend ante-natal clinics conducted outside the hospitals. In this way a very large proportion of the expectant mothers in the country could be brought under immediate observation. The method is quite economical, for films are needed only in about 5% of all women screened, and some further experience will probably enable the number of “unnecessary” films to be still further reduced.

In this brief note we have confined our attention to pulmonary disease, but screen examination also has its value for the assessment of cases of heart disease, and draws attention to a certain number of cases which have been overlooked in the physical examination.

Summary

Screen examination of the chest has been included in the general examination of all women attending the ante-natal department of a general hospital. Organization was found to be easy.

Figures are given of the number of cases of pulmonary disease discovered by this method.

Our thanks are due to Mr. A. R. Hayward, senior radiographer, and Auxiliary Nurse E. A. Gale for their help in organizing this work.

REFERENCE

Clive, F. T. (1943). *Tubercle*, 24, 63.

Medical Memoranda

Intussusception of Small Gut due to Foreign Body

Intussusception of the small gut is an uncommon occurrence, and the following case illustrates points of interest.

A young man 19 years of age, employed as an electrician, was admitted to the Pembroke County War Memorial Hospital on the evening of Oct. 21, 1943. He complained of some abdominal pain, but this was not stressed, and pain obviously was not a prominent feature. The history given was that after starting to eat his lunch, soon after midday, he was suddenly seized with severe abdominal pain, distributed to the umbilical region, accompanied by vomiting. He walked to the surgery of the medical officer, and was ultimately sent to hospital. On admission his general condition was satisfactory, and he made little complaint except for the occurrence of several bouts of vomiting. His temperature was 99.8°; the bowels were opened that morning.

Examination showed the presence of a smooth circular mass, slightly tender, of ill-defined edges, and situated on the right side a little below the umbilicus; it was movable transversely. The abdomen was opened that night by Mr. A. B. Davies. Dilated small gut presented in the wound, and the lower right abdomen was occupied by a curved intussusception about 8 in. long and situated about 12 in. from the ileo-caecal juncture. Attempts at reduction failed, and resection of gut with end-to-end anastomoses was carried out. Convalescence was uneventful. Subsequent examination of the removed gut showed the invaginating portion to be gangrenous, while one half of a steel screw occupied the lumen of the bowel at the apex of the intussusception.

The absence of urgency in clinical findings of this case contrasted with the gangrenous state of the gut in the intussusception. The swallowing of the steel screw which initiated the condition probably resulted from the habit of technicians of using the mouth as a temporary receptacle for such objects during their mechanical operations.

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