intestines were collapsed. The liver showed a state of mild cirrhosis; on microscopical examination there was found an increase of fibrous tissue around the bile ducts, with partially obliterating endarteritis of the vessels. The spleen, uterus, and appendages were normal, but the kidneys were slightly granular. There was a typical broad-ligament cyst on the right side, of irregular shape; it passed across the bladder, with a small protuberance causing the apparently separate mass on the left side. On section it proved to be an innocent multilocular growth, with papillary proliferations.

This case has several features of interest. The muscular effort which ruptured the heart must have been very slight, as the patient was lying in bed. She was by no means a nervous woman, and was perfectly willing to be operated on for her condition. The right ventricle is said to be affected in only one quarter of these rare cases of rupture of the heart, the left ventricle being the usual chamber involved. The slight degree of precordial pain, and the comparatively long duration of life after rupture, due, no doubt, to its small size, add interest to a very unusual case.

My thanks are due to Dr. S. W. Curl for permission to publish this case, and for his help in compiling these notes.

TREATMENT OF RINGWORM BY THALLIUM ACETATE.

BY

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SINCE reading the report in the *BRITISH MEDICAL JOURNAL* of February 19th (p. 329), I have taken the opportunity of investigating the treatment of ringworm of the scalp in children at the Withington Hospitals, by the internal administration of thallium acetate. The cases were taken at random among children up to 5 years of age, no consideration being given to the extent or duration of the disease.

In all cases the urine was ascertained to be free from albumin, albuminuria being a contraindication to the use of the drug, and in all cases a positive spore test had been returned before treatment.

The dose of thallium acetate given was $\frac{1}{8}$ grain per $2\frac{1}{2}$ lb. of body weight, irrespective of age. The drug is easily soluble, and was made up in sweetened water and administered in a single dose. No constitutional symptoms were observed after the administration of the drug, nor yet in the case of one child who received a second administration six weeks later. No local treatment was applied to the scalp, but the head was covered to prevent loose hairs being a source of infection to other children. The shedding of hair commenced between the fourteenth and sixteenth days. The hair could then easily be pulled out without causing any discomfort, and it also came off in the caps. The shedding was in every successful case complete in from three to six days. The very short stumps were found to be loose, and were readily extracted by application of adhesive plaster for a few minutes. The action of the drug was entirely selective to the hair of the scalp.

In all cases a roughness of the extensor aspects of the forearms and of the outer side of the legs was observed about the tenth day after the administration. After the shedding of the hair dermatitis of the scalp occurred in several cases, but yielded to treatment by zinc ointment in the course of a few days. The new hair commenced to grow almost immediately.

Case 1.—A boy, aged 4 years, presented several patches of ringworm of the scalp; he had been treated for over six months by various local applications. The child's weight was 2 st. 2 lb. 12 oz., so 1.7 grains of thallium acetate was given on March 22nd. Epilation commenced on April 6th (sixteen days after) and was complete in six days. He has now quite a fair crop of hair, and spore tests from different parts of the scalp are negative.

Case 2.—A child, aged 1 year 8 months, weighing 1 st. 8 lb. 2 oz., was given 1.23 grains of thallium acetate; the shedding of hair began on the fifteenth day and was complete in five days.

Case 3.—A child, aged 2 years and 8 months, weighing 1 st. 13 lb. 6 oz., was given 1.52 grains of thallium acetate; the shedding of hair began on the fifteenth day and was complete in five days.

In Cases 4, 5, 6, and 7 shedding of the hair commenced on the fourteenth day and was complete in three days. Photographs of one of these cases are reproduced; the age of the patient was 3 years and 6 months, and he weighed 2 st. 3 lb. 4 oz. A dose of 1.74 grains of thallium acetate was given on April 23rd, and the

shedding of the hair commenced on May 6th. In Case 8 the child, aged 2 years and 4 months, and weighing 1 st. 12 lb., was given 1.5 grains of thallium acetate. The shedding of hair commenced on the sixteenth day and was complete in six days.

Out of the first ten cases two were unsatisfactory; one was a failure for which I cannot account, as shedding of the hair occurred only very slightly, and the other was unfortunately given an underdose, and shedding of the hair was only partial.

The results of these few cases suggest that there is wide scope for the use of thallium acetate, especially in children under the age of 3, where x-ray epilation is inadvisable.

I have to thank Dr. Gibson, the visiting dermatologist, for his interest and help in these cases, and also Dr. Gamble, the medical officer, for permission to report them.

[The reader is referred to a paper on this subject by Professor W. E. Dixon, communicated to the Section of Dermatology of the Royal Society of Medicine on March 17th, and published in the current (June) number of the *Proceedings* of the Society (p. 1197). An annotation of this paper appeared in the *JOURNAL* of March 26th at page 581.]

CARDIAC FAILURE ASSOCIATED WITH NEW GROWTH IN THE CHEST.

BY

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THE following case has interesting features and seems worth recording, as the presence of mitral stenosis, together with a new growth in the chest causing acute symptoms simultaneously, must be exceedingly rare.

The patient, a man aged 41, gave a history of becoming easily fatigued for twelve months, and swelling of the legs and arms for four months. He stated that the oedema in the right arm had always been greater in amount than that in the left.

On admission he was very dyspnoeic and cyanosed. He was coughing up a fair quantity of sputum, which was slightly tinged with blood. There was a considerable amount of oedema—of both legs, the scrotum, and both arms (of which the right was much more swollen than the left). The other signs of cardiac failure present included enlargement of the liver and spleen, a small amount of fluid in the abdomen, and congestion at the bases of both lungs. The urine had a specific gravity of 1020, and contained both albumin and blood.

The physical signs in the chest may be summarized as follows: The heart was enlarged, the right border being half an inch to the right of the sternal margin and the left two inches outside the nipple line. At the mitral valve there was a localized pre-systolic and a soft systolic murmur. The aortic and pulmonary sounds were normal. It was also noticed that the right apex was less resonant to percussion than the left, and that at this side the breath sounds were distinctly weaker. Enlarged superficial veins were present on the right side of the chest.

The conclusions were that the patient was suffering from cardiac failure due to mitral stenosis, and that there was something in the neighbourhood of the right apex which was partially obstructing the innominate vein. An x-ray photograph of the chest was not taken until a later date owing to the gravity of the symptoms.

The cardiac condition was treated by the usual measures; these included rest in bed, venesection, Southey's tubes and incisions into the right arm, and the administration of Nativelle's digitaline and diuretin. After twelve days' treatment there was a marked improvement in all his symptoms, but the oedema of the right arm persisted.