CONGENITAL PULMONARY STENOSIS.

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IN general medical practice the diagnosis of disease or affection of any organ is comparatively easy where there are significant signs and symptoms. Where such are not prominent, many diseases escape detection. This is the case particularly amongst children. Since the introduction of school medical inspection this has become more manifest than ever. It is my privilege to examine annually at routine inspections alone some five or six thousand children, and though there are many affections which are discovered only then, none are so striking to me as cases of congenital pulmonary stenosis. It is somewhat remarkable that such should be the case, in view of the typical text-book description of this disease, which would appear to postulate invariably marked cyanosis and inevitable early death. Therefore it may appear to some to be incredible that pulmonary stenosis can be present without producing obvious symptoms. Yet the following are cases which were for the first time brought to the notice of the unsuspecting parents at medical inspections. The height and weight of the children were about the average, mental condition was good, and general nutrition was outwardly seemingly unimpaired. The children showed none of the usually obvious signs—viz., marked cyanosis, clubbing of fingers and toes, dyspnoea on exertion, cough, tendency to great backward pressure. With regard to the diagnosis, much can be said for the method of auscultation at the pulmonary area first, in the examination of children.

CASE 1.—A female aged 6 years. History: At birth no cyanosis. At present no signs or symptoms due to backward pressure. The mother was of the belief that this, the eighth child, was as healthy as the other members of the family. Cardiac examination:—Inspection: Pulsations (epigastric and venous in the neck). Palpation: Præcordial thrill, marked over the upper third of the sternum and to the left of it. Percussion: Slight dilatation of the right auricle. Auscultation: Loud systolic murmur over the pulmonary area, but heard best at the costal cartilage of the third left rib. Second sound at the pulmonary area not clearly defined and followed by a faint diastolic murmur. The breath sounds in the lungs are vesicular with no accompaniments.

CASE 2.—A female aged 8 years. History: At present the child is very healthy and shows no signs or symptoms of backward pressure. The mother is unaware of her child's heart condition. Cardiac examination:—Inspection: Cervical venous pulsation. Pulsation to the left of the upper part of the sternum. Some distended venules over the thorax. Palpation: Marked systolic thrill over the præcordia. Percussion: Increase of cardiac dullness upwards and to the left. Auscultation: Rough systolic bruit at the pulmonary area, likewise followed by a faint diastolic murmur. No accompaniments with breath sounds in the lungs.

CASE 3.—A female aged 6½ years. History: Healthy child. No signs or symptoms due to backward pressure, at birth or at present. Cardiac examination:—Inspection: Pulsations—suprasternal in the second and third left interspaces and venous in the neck. Palpation: Systolic thrill to the left of the sternum, most marked in the second and third interspaces. Percussion: Slight dilatation of the left auricle. Auscultation: Systolic bruit at the pulmonary area.

CASE 4.—A female aged 5½ years. History: No sign or symptom of cardiac weakness. Child seemingly robust.

Cardiac examination:—Inspection: Pulsation in the second and third left interspaces. Palpation: Systolic thrill. Auscultation: At the pulmonary area, loud systolic bruit and second sound faint.

The cases serve as an illustration of the utility of the medical inspection of school children for the detection of unrecognised conditions requiring treatment and care.

Such precautions will undoubtedly maintain, and ultimately increase, the virility of the future generations.

South Shields.

THE USE OF HYPERTONIC SALINE SOLUTION IN GYNÆCOLOGY.

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AT the present moment, when the use of hypertonic saline (Wright's solution and others) is being attended with such success in the treatment of septic shell-wounds, it may not be out of place to draw attention to the value of such solutions in the treatment of surgical affections of the female pelvis. The hygroscopic properties of glycerine tampons and pessaries have long been made use of in treating inflammatory conditions of the pelvis, but the use of strong saline solution as a vaginal douche has apparently not come into general use, and it is not mentioned in several text-books published during the present year. This is my excuse for drawing attention to the excellent results that may be obtained by its use. Since my return to England some months ago I have used a solution made of 4 drachms of sodium chloride and ½ drachm of sodium citrate to each pint of water as a vaginal douche in all inflammatory and septic cases where a douche is required, and find their effect is better than that of the antiseptic douches previously employed. In puerperal cases with sloughing of the perineum and vagina the effect is extraordinary—the so-called "puerperal ulcers" being replaced by healthy granulations within a few days. Among the patients thus treated have been cases of sloughing of the vagina from repeated unsuccessful application of the forceps, septic lacerations deeply involving the broad ligament and cervix, and sloughing of the cervix and vagina from repeated attempts by several people to deliver a patient who was subsequently delivered by abdominal section. In puerperal sepsis (especially abortion cases), after clearing out the uterus and douching it with saline solution, it is useful to leave a few tabloids of salt inside the uterine cavity to ensure that any organisms left there are flooded with the serum that is drawn in to dissolve the salt. The use of salt tabloids was, I believe, suggested first by Mr. Beckwith Whitehouse in France.

In gynæcology all forms of infected and congested pelvis respond well, such as salpingitis, cellulitis, gonorrhœa, vaginitis, and erosions of the cervix. Among the most striking results is the way in which a carcinomatous cervix cleans up before operation: these cases rapidly lose their offensive smell and become cleaner in appearance much more quickly than with iodine douches. As far as an experience at present limited to four cases enables a statement to be made, it appears that the parametrium during the operation is less congested than usual, but this may be only a coincidence. In the cases where drainage per abdomen is necessary

on account of acute infection (e.g., gangrenous appendix) the results of saline irrigation of the drainage track have been highly satisfactory.

For hospital out-patient use the powder is put up in the proportion of one ounce of salt to half a drachm of sodium citrate. This proportion of citrate is rather lower than usual, but quite high enough for the purpose, considering that the present price of citrate is about 5s. per pound. The powder, being bulky, is dispensed in paper bags labelled, "Two tablespoonfuls to two pints of water as directed."

About 1905 the late Mr. Barnard advocated the use of brine enemata for abdominal cases, and since seeing his article at that time I have frequently ordered them and have always been satisfied with their effect. The salt may be used as strong as 8 drachms to each pint, but at that strength the enema, though very powerful, is somewhat irritating to the bowel. As a rule 3 to 6 drachms to the pint is strong enough and does not cause any pain. For the obstinate constipation of eclampsia these enemata are very useful, as soap enemata may be retained and turpentine is absolutely contra-indicated because of the renal condition.

Wimpole-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THREE CASES OF CONCUSSION APHASIA: TREATMENT BY GENERAL ANÆSTHESIA.

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Loss of the power to speak has been a very common sequence of shell-shock. A majority of the cases have been pure anarthria, with retention of the intellectual mechanism of speech. One may suppose the shock to have jogged out of position the synapses of the motor conduction tracts, the wires of which have lost their points of contact. The functional continuity may be restored by an emotional jar, as in the patients who recovered in a London hospital near to which a Zeppelin bomb exploded. Hypnotism and other forms of suggestion have also proved successful. In the cases here reported recovery has followed general anæsthesia—in the first from alcohol, the others from ether.

CASE 1.—The patient, aged 25 years, had been nine years in the service. While in the trenches at Ypres on June 17th, he was buried in a dug-out by an explosive shell. He was taken out unconscious and sent to Versailles, where he was admitted to hospital on June 25th. Consciousness returned a few days after the injury, but he complained of ringing in the ears, difficulty in hearing, and inability to speak. In this condition he was admitted to Taplow on July 12th. At this date his history states that apart from these symptoms and a rapid heart action (108 at rest) he felt and was perfectly well. He continued in this condition until about August 14th, when he at times refused solid nourishment, and he remained in bed. His eyes were closed at times and twitching; this was more pronounced when spoken to. He resisted having his eyelids opened. About August 27th the patient was allowed to visit the village with some of his companions and while there became intoxicated. In this condition he "found his voice," and for two days talked and sang incessantly. He was discharged on Sept. 9th, cured.

CASE 2.—The patient, aged 18 years, was admitted on August 27th. I regret that no history is available in this case, but the facts are about as follows. He came to this hospital from France, where he had been on duty in the trenches. A shell exploded close to him. He suffered no external injury, but after recovering somewhat from the shock was unable to speak. After being some weeks at the base hospital he was transferred to Taplow. On August 23rd it was decided to anæsthetise him, and during the stage of excitement induce him to speak. He was accordingly etherised and encouraged to speak, which he promptly commenced to do, and was discharged on Sept. 17th perfectly well.

CASE 3.—Private —, aged 23, was admitted on Sept. 10th from the Gallipoli Peninsula. His history is similar to the preceding case. A shell had exploded behind him. He was picked up unconscious, and remained so about a day; he gradually recovered, but had not spoken since. His past and family history were negative. Upon arrival cerebation was somewhat slow, but steadily improved. An interesting feature of this case was that this man was a professional musician, and although his ability to read ordinary print was unaltered his reading of music was lost with his speech. On Sept. 20th it was decided to etherise him, which was accordingly done. This patient was of a phlegmatic type and was not excited easily, and took the anæsthetic very quietly, but after some perseverance he was induced to talk and has been quite well ever since, his ability to read music returning with his voice. He was discharged on Oct. 4th, 1915.

Sir William Osler, who had seen these cases with me, wrote to the American Hospital, Paignton, to have a patient whom he had seen there anæsthetised. He has heard from Dr. D. P. Penhallow that the man promptly recovered his speech after the anæsthetic.

Taplow.

NOTE ON A CASE OF SELF-INOCULATION WITH THE BACILLUS AEROGENES CAPSULATUS.

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THE following case is reported because of its similarity to the experiments on animals described in THE LANCET of Sept. 4th in an article entitled "The Use of Quinine in the Treatment of Experimental Gaseous Gangrene."

An assistant in experimental pathology appeared at the laboratory at 11 A.M. on Sept. 17th and stated that she had inoculated herself with the *B. aerogenes capsulatus* "in order to demonstrate the efficacy of the treatment in an uncomplicated case in a human being." Careful inquiry brought out the following facts. The inoculations had been made two hours previously in the same manner as in the animal experiments. One dose of 5 c.c. of a 60-hour broth culture of the organism was injected deep into the extensor muscles of the left thigh and another of 3 c.c. beneath the skin of the right thigh. The strain used was one isolated from a clinical case of gaseous gangrene; it had proved to be the most virulent for guinea-pigs of any used in the laboratory, two drops of a 48-hour culture invariably killing the animals after intra-muscular inoculation. The patient was examined. The sites of inoculation showed diffuse discolouration of the skin for several centimetres about the puncture on the right thigh with a slight degree of swelling; the left thigh was also swollen but showed no discolouration of the skin. The patient complained of some nausea, dizziness, and stiffness of the left thigh.

Treatment.—25 c.c. of a 1½ per cent. solution of quinine hydrochloride in sterile water were immediately injected into the deep muscles of the left thigh, the patient indicating the direction of the needle according to the course followed by the original inoculation. She was then removed to the hospital for observation and further treatment. Ten hours after the first injection of quinine a second injection of 30 c.c. of the same solution was made in the same