and these partial fibroid changes. But there are others who would not go thus far with me. Dr. Greenfield thinks that it is possible by histological investigation to say that some of these chronic indurations are syphilitic; and, if he be right, there is an end of the matter. I do, however, think that, in comparing the various chronic destructive diseases of the lung, we can say that some degree of fibroid change in the lung is more common in those lung-diseases associated than in those unassociated with syphilis; and that, without any improbability, we can mentally bridge over the gap between the lesser and the greater, and foreshadow the occasional occurrence of a change such as Dr. Shepherd pictures.

The really important point of this question, however, is this, and so far all must be at one. It is very necessary to recognise clinically as often as possible the form of disease from which a patient is suffering. If we limit our idea of lung-syphilis to that form described by Dr. Bäumlér, Dr. Shepherd, and others, we only find it occasionally, when it is a pathological curiosity, and I may add past cure. But if, on the other hand, we assume—and, in doing so, I repeat we are only assuming what from the course of disease in other viscera is probable, and what there is at all events some evidence to support, if not sufficient to prove—that fibroid changes in the lung are not uncommon in syphilis, we do throw light upon a class of cases where, with some indications of phthisis, the chief symptoms are those of bronchitis with emphysema, and in which, I believe, a great deal of good is occasionally done by iodide of potassium.

CASE OF PULMONARY STENOSIS WITH PATENT FORAMEN OVALE.

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THE patient, a boy, W. W., aged 11 years, was admitted under the care of Dr. Wade on the evening of December 20th, 1876, in a very exhausted condition, with orthopnoea, aphonia, and oedema of the lower limbs. He had a constant teasing laryngeal cough, with mucous expectoration. Physical examination showed redness of the vocal chords; *râles* over both lungs; a double murmur at the base of the heart, heard best in the aortic area; and a systolic murmur at the apex. The urine was scanty, highly albuminous, and contained granular casts. There was no cyanosis; his face was white and puffy. His condition was not favourable for further examination, and he died on the morning of the 24th, less than four days after admission.

I obtained from his mother the following details of his personal and family history. His father is a healthy man, and has had no illness except jaundice. His mother, who follows the laborious occupation of a washerwoman, had rheumatic fever twenty years ago, but has had no symptoms or signs of cardiac affection. She has had several children, of whom none have been blue, but they are delicate. She always thought the deceased to be quite a healthy child up to the age of five years, when suddenly, without previous illness, he became paralysed on his right side, both limbs being affected; but his speech was unimpaired. He was under treatment at the Children's Hospital, and got better of the paralysis, but has ever since been ailing and has had a constant cough. During last year, he was an in-patient of the Homeopathic Hospital in this town, but got worse; and two months since, when he was removed, his legs were swelled. For twenty-four hours before his admission here, he was seized with an attack like croup, when he was seen by Mr. Baker, who advised his removal to this hospital. He had never looked blue at any time.

NECROPSY.—The integuments generally were pale. There was oedema of the lower limbs. The head was not opened. The larynx showed traces of recent catarrhal inflammation. Both lungs were congested, and the lower lobes were hepatized. The liver was congested and fatty. The kidneys were congested; and, under the microscope, the tubules were seen to be stuffed with fatty epithelium. The spleen, stomach, and intestines were healthy. The pericardium was distended with clear serum; the surface of the heart was smooth; the right cavities and the venæ cavæ were distended with recent clot; the aortic and pulmonic valves were tested, and found competent. On opening the right auricle, after removing the clot, it was found to be dilated. The foramen ovale was quite patent, and admitted a cylinder fifteen-sixteenths of an inch in diameter. The Eustachian valve was represented by only a narrow fold. The auricular appendix and the orifice of the coronary sinus were dilated, and the latter contained old clot; the tricuspid valve was healthy; the orifice admitted a cylinder one inch in diameter. The pulmonary orifice was small, the segments being adherent, so as to form a ring admitting a cylinder only six-

sixteenths of an inch in diameter. The valve was very little thickened; above it, in the pulmonary artery, there were numerous warty vegetations on the lining membrane. The ductus arteriosus was, I believe, quite closed; but its condition at the time was not noted. The right ventricle was dilated and hypertrophied. The left auricle and ventricle were empty, and appeared healthy. The mitral orifice admitted a cylinder thirteen-sixteenths of an inch in diameter; and the aortic orifice, measured in the same manner, was nine-sixteenths of an inch in diameter.

REMARKS.—The stenosis of the pulmonary orifice was considerable. According to Dr. Wilks's tables, the pulmonary orifice should be one-eighth larger than the aortic opening; but the measurements given show it to have been one-third less. Moreover, the foramen ovale was so large, and the tension in the pulmonary veins so diminished, that blood, in all probability, passed through in considerable quantities. Much unoxidised blood, no doubt, passed into the systemic circulation; yet none of these coincident phenomena at any time caused cyanosis. It is now generally admitted that simple admixture of venous with arterial blood will not produce cyanosis. Breschet's case, quoted by Rokitsansky (Sydenham Society, vol. iv, p. 248), of the subclavian artery of the left side arising from the pulmonary artery without causing anomalous colouration of the limb, is sufficient to disprove the hypothesis; and the case reported by Dr. Peacock (*Med.-Chir. Trans.*, 1849), in which a perforated septum divided the conus arteriosus from the right ventricle and caused considerable obstruction and cyanosis, although the auricular and ventricular septa were intact, shows that such admixture is not even a necessary factor in the production of this phenomenon. According to Rokitsansky (*ibid.*, p. 343), cyanosis "depends upon an obstruction in the passage of the venous blood into the heart, and upon an overcharging of the venous system, which is either transient or habitual, according to the circumstances of the case, and induces a corresponding repletion of the capillaries". Thus stated, the proposition is too general, and lacks the definiteness requisite for its application to those cases, which are called cyanosis proper. Rheumatic affections of the auriculo-ventricular valves never produce cyanosis to such an extent as to deserve the name of morbus ceruleus. Niemeyer justly observes in a note (*Text-Book of Pract. Med.*, vol. i, p. 369), "that the great cyanosis of persons with congenital malformation of the heart is due to an especial cause, becomes evident from the fact that individuals with congenital cyanosis do not become dropsical nearly so soon as those suffering from acquired cyanosis. This would not be the case if the cyanosis were due to venous engorgement". He finds this especial cause in the mixture of the blood and its consequent dark colour, or in the dark colour it acquires by the extreme retardation of the circulation, added to the venous obstruction. But the occurrence of cyanosis does not keep a definite relation to these causes; for mixture of the blood, slowness of the circulation, and venous obstruction may occur singly, or all combined, without producing cyanosis. Here, as a loophole for escape, we are told that cyanosis never occurs in anæmic or thin-blooded subjects. Certainly the children described by Dr. B. W. Foster (*Clin. Med.*, p. 35) as suffering from diarrhoea, ill fed and ill cared for, and of whom he says "the extreme poverty of the parents rendered the supply of the bare necessities of life often precarious", were, in all probability, anæmic and "thin-blooded"; yet they were marked examples of cyanosis.

The absence of cyanosis in the great majority of cases of venous obstruction compels us to seek for some more precise expression of the cause than the words quoted from Rokitsansky. As a rule, venous obstruction causes, not cyanosis, but oedema; and the exceptions are to be found in those cases where the obstruction is gradual and the vessels can accommodate themselves by dilatation and by gaining support from the condensation of their surrounding tissues. In the disease called cyanosis, the blueness is always most visible in those parts which, from their size, position, or anatomical peculiarities, are prone to turn blue under the influence of external cold. The vessels in these parts are easily dilated; the blood-current, from some cause, is naturally feeble, and stagnation easily occurs. We must bear in mind that blueness in these parts is not under any circumstances a true indication of the general condition of the capillary circulation. Most, if not all, of these cases of cardiac defect with cyanosis are congenital or acquired in early childhood, when the modifiability of structure is very great. The appearance of cyanosis depends upon the compensation being sufficient to allow the venous obstruction to do no more than cause dilatation and retardation of the current in the capillaries of certain peripheral parts. If the compensation be greater, no symptoms may be present until they are developed by the strains on the circulation entailed by the growth of the body or other causes. If the compensation be less, death ensues, or oedema occurs and the cyanosis is

masked. It is obvious that cyanosis *might* occur at any age; but it is easy to understand why it is so much more apt to occur in childhood, when the strain on the circulation is so small and the adaptability of the organism so great. The openings in the ventricular and auricular septa are important compensations, which permit the overgorged right heart to empty itself, and in this way reduce the pressure in the venous system. To this fact I attribute, in great part, the absence of cyanosis in the boy W. W.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

ST. BARTHOLOMEW'S HOSPITAL: SURGICAL CASES.

Scirrhus of the Breast.—A woman, thirty-seven years of age, was brought into the theatre for the removal of a scirrhus tumour. Mr. Savory, contrary to his usual practice, removed only a portion of the gland, leaving the nipple intact. The incisions were made in perfectly healthy tissue wide of the tumour. Catgut ligatures were used and cut short; silver sutures were employed to close the wound, and a pad of dry lint was placed over the breast. On examination of the parts removed, the skin over the tumour was seen to be retracted; on section, it cut with a crisp feel. The section was concave on the surface; the growth infiltrated the adjacent tissue, and was not incapsulated. The patient had herself strongly urged early operation, feeling sure the tumour was cancerous, as she was aware that four of her aunts on her father's side had died of cancer.

Aneurism of the External Iliac Artery.—A warehouseman, thirty years of age, apparently in good health, presented an aneurism of the external iliac, forming a tumour as large as a small orange just above the right groin. No determining cause was apparent; there were no signs of syphilis, and no disease was discovered in any other artery; the heart's sounds were healthy. As the tumour was rapidly increasing in size, on the second day after admission Mr. Savory exposed the external iliac artery by means of the usual incision. The vessel was found to be diseased and dilated for an inch above the aneurism; but, the upper portion being healthy, a thick silk ligature was here passed round the vessel, and both ends of the thread brought out through the wound. When seen on the fifteenth day after the operation, the tumour had shrunk to one-third its former size, and the wound was nearly healed, with but little suppuration along the track of the ligature. No complications have occurred, and the man is in all respects doing well.

Amputation of the Leg for Chronic Ulcer.—A woman under the care of Mr. Willett had suffered much pain from an extensive ulcer of the leg of four or five years' duration; and, six months ago, extensive and deep sloughing set in, completely "barking" the leg around its middle portion; this was attributed by the patient to the use of a carbolic acid lotion. The suffering had been so great that sleep could hardly be procured by the use of opium and other sedatives, and the destruction of tissue was so extensive that a cure appeared impossible. Amputation was performed at the upper third of the leg through healthy tissues, the femoral artery being commanded by a tourniquet; the anterior flap was cut very short, and the posterior one long. By this method, the bone gave more support to the soft parts, preventing their swaying about, and the line of union was brought well in front of the bone. Antiseptic precautions were used, the operation being performed under carbolic spray produced by hand-pressure, and, the sections being made through sound tissues, a favourable result was anticipated. In this case, there was no difficulty in securing the vessels, as there sometimes is near the interosseous membrane; catgut ligatures were employed and cut short; a drainage-tube was laid between the flaps, which were brought together by silver sutures.

Operation for Ganglion of the Wrist.—A man had been troubled four or five years by a ganglion of the wrist on the right arm, which prevented his grasping any object firmly. One portion of the ganglion was above the annular ligament, another in the palm of the hand. Mr. Marsh employed Esmarch's bloodless method, and performed the operation under the carbolic spray. An incision was made into the upper swelling; a little bursal fluid escaped, but none of the "seed-like bodies" often found; a drainage-tube was then inserted without a counter-opening. The arm was put upon a straight splint. Several

cases of ganglion have been thus treated lately with success. In all these operations, anæsthesia was produced by first administering nitrous oxide gas and then using ether.

Severe Injury to the Head.—A young woman under the care of Mr. Marsh was brought to the hospital after having been brutally hit on the head several times with a blunt axe; fifteen scalp-wounds had been inflicted, and three fractures were detected, besides several places at which the bone had been chipped out. She was unconscious for a few hours after the assault; but, notwithstanding the amount of injury inflicted, she has made a good recovery thus far, without the occurrence of any serious symptoms. Now (ten days after admission to the ward), all the wounds are suppurating freely; in one, pulsation is seen, evidently from communication with the brain; a scalp-abscess formed and has been opened. The patient is well enough to amuse herself by reading. A large poultice is applied to the whole head, and the woman is kept very quiet.

WARDS OF DR. BLACK.

Paraplegia, probably of Syphilitic Origin.—A confectioner, twenty-eight years of age, of generally healthy appearance, complained of great weakness of his legs, so that he could only just walk upstairs with assistance. His illness commenced four months ago with gradual loss of power in his legs, his arms remaining as strong as before. He had also been much troubled with vertigo when walking or attempting to walk. It was observed that, though the right pupil was widely dilated, the left was small and irregular, evidently the result of old iritis. He had been an in-patient eleven years before with venereal disease, and it appeared probable that syphilis was the cause of his paraplegia.

Addison's Disease.—A young man complained of vertigo, increased by any attempt to walk, frequent irregular vomiting, inability to obtain sound sleep, and some emaciation. His illness had come on gradually during some months, and had compelled him to leave his work. His complexion was very dark, but the conjunctivæ were unstained. The increased pigmentation was principally seen on the face and neck; no stainings were found on the mucous membrane of the mouth; this deep colouration had been acquired during the last year. His gums were very spongy and bled easily. There was no abdominal pain or tenderness, and the chest presented no abnormal physical signs. No family history of phthisis was obtained. The case appeared to be one of Addison's disease as yet only partially developed.

Rheumatic Pericarditis.—A lad convalescing from rheumatic fever presented one important sign of pericarditis; viz., a general heaving over the præcordial region and a diffuse wave-like impulse; the area of præcordial dulness was also much increased. Earlier in the illness, there had been a friction-sound, but this had passed away, probably owing to the occurrence of adhesions.

Rheumatic Fever accompanied by Jaundice.—A man had rheumatic fever in 1874 and again in 1875. He has now been ill eight days, and lies in bed with a dull depressed aspect; his manner is very languid; he complains much of pain in his back and joints; there is a considerable amount of arthritis, especially in the hands. Three days ago, he became jaundiced, and the colour is now of considerable depth. His temperature is nearly 102 deg. Fahr. The liver is slightly enlarged; but the exact cause of the jaundice is not apparent. The bowels have been opened by sulphate of magnesia, and he is taking a mixture of bicarbonate of potash.

Urgent Hemoptysis.—A young man was brought to the hospital on account of a violent attack of hæmoptysis. He was not emaciated, and did not present the appearance of phthisis; but it was considered undesirable to employ the methods of physical examination, or to allow the patient to narrate his history, till the hæmorrhage had ceased. The diagnosis was deferred. The treatment employed was symptomatic; he was ordered to keep perfectly still in bed and suck ice.

A Case of Hyperpyrexia of Doubtful Origin.—A lad was carried into the hospital complaining of pain in his abdomen and left thigh. He spoke with some difficulty, being much exhausted by pain and want of sleep. He was evidently very ill; his temperature was 105.5 deg. Fahr.; pulse 144, and respirations 32 to the minute. His chest presented no signs of disease; the heart's action was forcible, but otherwise healthy. When perfectly still, there was no pain; but the upper part of the left thigh and left inguinal region were very tender, without redness or swelling. His illness had come on suddenly five days previous to admission. The case was evidently one of acute disease; his head was quite clear; there appeared no signs of any specific fever, and the disease appeared to be local in its origin. Examination showed no signs of hip-disease or of caries of the spine. A large poultice was ordered to be applied to the seat of pain; a dose of castor-oil was administered, to be followed by a Dover's powder.