

PALPATION OF THE PANCREAS IN SPLANCH- NOPTOSIS (GLÉNARD'S DISEASE).

By R. LLEWELYN JONES, M.B. (Lond.), M.R.C.S., *Assistant Medical Officer to the Durham County Asylum*; and T. ALDOUS CLINCH, M.D. (Edin.), *Pathologist to the Durham County Asylum*.

CASE.—Patient, an old woman, æt. 73, of thin spare habit, was suddenly seized with an attack of faintness. She was conveyed to bed, and on examination her temperature was found to be 98°·8, and her pulse extremely feeble and irregular, the arteries being atherosed. Stimulants were administered, and she rallied fairly satisfactorily. As soon as her condition allowed of a more thorough examination, the following details were elicited:—

3rd December.—In the evening her temperature registered 101°·4. Pulse 120, feeble and irregular. Her face was cyanosed, with dilated venules, her chest rigid, its walls thinly covered, its upper interspaces wide, its lower cramped and oblique; much infraclavicular retraction of the apices; the præcordial area prominent, the apex beat very diffuse, its point of greatest intensity lying in the sixth space external to nipple line; pulsation in the second, third, and fourth left intercartilaginous and costal spaces, also in epigastrium. Palpation revealed a slow, heaving cardiac impulse, and increased vocal fremitus at the left apex. Resonance was muffled over both apices, and the area of deep cardiac dulness was much increased. The breath sounds over both apices were markedly congested in character, and over the left clicking râles were heard. The resonance over both bases posteriorly was muffled, the breath sounds were bronchial with moist sounds, and vocal fremitus was increased over the left base. The abdomen in its upper half was flattened, while below the umbilicus it was distended and tympanitic, but a well-defined area of dulness extended from the infrasternal notch as far as the umbilicus. No enlargement of the liver below the ribs was detected, and the above-mentioned area of dulness seemed difficult of interpretation. The area in question felt resistant, but was apparently painless. Great difficulty was encountered in the abdominal examination, the patient being very demented, extremely irritable, and actively hostile. Her urine was high coloured, sp. gr. 1017, containing albumin.

4th December.—Temperature, 101°; pulse, 120; respiration, 40. Patient very cyanosed; tongue dry and brown; bowels confined; retention of urine. Quinine, digitalis, and ipecacuanha were given, also small doses of opium to allay her restlessness and irritability. Milk and alcohol were given and taken well. Her bowels were regulated by calomel and jalapin, with occasionally glycerin enemata.

5th December.—Coarse friction was heard over left lung posteriorly, up to the angle of the scapula, with loud bubbling râles, with marked dulness and increased vocal fremitus; a few râles were heard over right base.

6th December.—The pleuritic rubs have disappeared, also vocal fremitus, but the dulness is more marked, and breath sounds very feeble. Aspiration revealed presence of 6 oz. of fluid, the removal of which was

followed by a partial return of resonance. The right base increasingly dull, with loud coarse râles. Heart sounds loud, ringing, very faint; systolic *bruit* over fourth costal cartilage.

7th December.—Patient extremely cyanosed; respiration, 25; temperature, 98°·8; pulse very feeble, rapid and running; much recession of lower interspaces; friction returning over left lung, with occasional friction over right base. The systolic *bruit* above noted has increased markedly. Its point of greatest intensity was the fourth costal cartilage; from thence it was conducted outwards towards right nipple, rapidly tailing off towards base and apex. The *bruit* was plainly distinguishable behind over suprascapular region. The first sound was extremely indistinct.

Patient, while in the act of feeding, suddenly gave a loud shriek, dying almost immediately. In explanation of the above-mentioned *bruit*, it has been suggested that its origin is in some way connected with the formation of pre-mortem clot.

NECROPSY.—On opening the abdomen, one was at once struck by the altered relations of the viscera. In place of the rounded prominence of the stomach, the small omentum was seen drawn tense over the pancreas, aorta, and spinal column, all of which were plainly distinguishable through it both visually and palpably. The liver was at first invisible, having been rotated on its transverse axis so that its anterior edge disappeared beneath the margin of the ribs, while the posterior edge was hidden behind the hepatic flexure of the colon. The stomach, of normal size, was found about the level of the umbilicus; and below it, occupying the lowest segment of abdomen and pelvic cavity, lay a confused medley of small and large intestine. On disturbing the organs somewhat, the spleen, similarly dislocated downwards and driven inward by the increased narrowness of the costal arch, was found to have contracted adhesions to the left lobe of the liver.

The kidneys, infarcted, granular, and cystic, lay beneath the posterior layer of the peritoneum, unsurrounded by fat, and slipping about readily under the slightest touch as far upwards as the liver and as far downwards as the true pelvic cavity. The uterus, disdaining to be outdone, lay retroverted in Douglas's pouch.

On removing the anterior thoracic parietes, the increased size of the heart was extremely apparent; its pericardial investment was thickened, inflamed, and gelatinous, and held in its cavity a small amount of turbid, blood-stained fluid. Over the left ventricle, fibrinous exudation formed feeble adhesions with the epicardium. The cardiac tissue, more especially of left ventricle, was rigid, thin, and hard, the seat of chronic myocarditis, a diagnosis amply confirmed by the microscope.

Covering the inner surface of the heart, and insinuating itself between the columnæ carneæ, was a quantity of pinkish, homogeneous-looking blood-clot, firmly adherent, and obviously of pre-mortem formation.

The cavities were much dilated, and the mitral orifice in some degree narrowed. The aorta was dilated, and its lining membrane degenerate and calcareous.

The lungs were the seat of senile atrophy and emphysema, both slightly adherent at the apices, and the right, in addition, bore the traces of old tubercular disease in that situation, while the base on the left side

was collapsed, and on the right congested. Moreover, the left pleural cavity contained a few ounces of blood-stained fluid.

The contents of the cranial cavity showed the familiar changes incidental to chronic insanity, *i.e.* thickening and opacification of the membranes, œdema, and atrophy of the nervous tissues, and atheromatous degeneration of the vessels.

REMARKS.—Among the many points of importance in this case, it is difficult to say which is the more interesting, the thoracic or the abdominal complications. It will be better, perhaps, to consider first the cardio-vascular condition.

In the atheromatous radial, coupled with the albuminous urine, we find the evidences of peripheral vascular degeneration; the diffuse, apparently powerful cardiac impulse, contrasting with the feeble hesitating pulse, point to the central degeneration.

Looking at the conditions, *i.e.* renal and vascular, we are confronted with the old problem as to whether the kidney simply participates in a general arterio-sclerosis, or whether the vascular degeneration is secondary to the renal disease.

In view of the extensive distribution of the vascular changes, and, in addition, the absence of any marked diminution in size of the kidneys, we are inclined to regard the arterial changes as primary, and the renal as secondary. In the absence of signs of actual valvular disease, and in view of the moderate kidney complication, we were led to suspect cardio-mural degeneration secondary to coronary disease. This leads to two well-known forms of degeneration, *i.e.* fibroid and fatty; and if we remember the essential points of difference are, that in the fatty the cardiac impulse is weak, very often hard or even impossible to localise, and hardly ever visible, and that in the fibroid the impulse is heaving, resistant, diffuse, both visibly and palpably, we shall see at once that the physical signs point to the latter condition, whilst, if we desire further evidence of mural degeneration, we have it in the absolute want of reaction to cardiac tonics.

We now come to the lung condition, and we find in the unyielding ribs and cartilages the upper interspaces widely divided, and the lower cramped and oblique, together with the humped back, evidences of atrophic pulmonary change. *En passant* we might allude to the presence of pulmonary collapse (probably secondary to fluid effusion) coexisting with senile atrophy,—an association said to be by no means uncommon.

To take a broad view of the matter, may we not consider the atrophy of the lungs and the general ptosis of the abdominal viscera part of a common degenerative process? that is to say, in each case we are dealing with an atrophy of interstitial tissue, which in the lungs has led to a fusion of the vesicles by absorption of the septa, and in the peritoneal tissues has operated by the wasting of the fat, not merely of the fat globules themselves, but the actual protoplasmic envelopes; the loss of fat being,

indeed, the result of the destruction of the cells containing it, as that the capsules of the various organs become too big, and the ligaments too weak to support their weight.

We now come to the point in the paper which we consider of most interest and practical importance, *i.e.* the exposure of the pancreas. This is a phenomenon, as far as we know, hitherto undescribed. In the normal the pancreas is covered by the layer of peritoneum constituting the posterior wall of the lesser peritoneal sac, and anterior to this lies the stomach, protected by the recti muscles, etc. Consequently, in the normal subject, the pancreas is absolutely impalpable.

In the present case the evidence of exposure of the pancreas was misinterpreted, but nevertheless, on a future occasion, it seems to us that it should not be impossible to recognise its exposure, and thereby to draw the deduction that downward dislocation of the stomach, or gastropotosis, is present. To recapitulate, the signs on which stress should be laid appear to be the following:—

The position of the pancreas, which crosses the vertical column 3 in. above the umbilicus, passing somewhat downwards on the right; an area of dulness corresponding to it, this area being unaffected by respiration; epigastric pulsation (the aorta); the palpation of a firm, smooth, somewhat sausage-like body; the flattening of the region above the umbilicus, with the distension below.

The conditions with which it is likely to be confounded are practically—impacted feces in the transverse colon, tubercular peritonitis, simple chronic peritonitis and omental growths; enlargements, cystic and otherwise, of the pancreas; enlargement of the retro-peritoneal glands; tubercular, lymphadenomatous, or malignant tumours of left kidney; enlargement of gall bladder, collections of fluid in the lesser peritoneal sac; cancer of the pylorus or transverse colon; enlargement of left lobe of the liver, whether malignant or otherwise.

It will be seen that exclusion plays a large part in the diagnosis, but it seems to us that to remember the existence of Glénard's disease goes a long way towards making the diagnosis.

The mental condition of the patient precludes our being able to attach any importance to her subjective sensations, but we feel able to suggest that the cramped, doubled-up posture which was invariably adopted by her, may have been an unconscious effort to relax the tension thrown on the supporting abdominal ligaments. Again, that the disease is well known to be associated with abdominal hypochondriasis is the best condonation that can be adduced for her atrociously bad temper.