they had respectively been derived. From this Dr. Martin argues that by a long course of transmission through the human organism the vaccine virus as unquestionably degenerates, as it does so much more rapidly in the horse. Hence, he alleges, the discrepancy between the prophylactic effect of vaccination as observed in Jenner's day and at the present time; hence the fact that re-vaccination, with strong, undegenerated animal lymph, will prove successful in 40 per cent. of cases where the operation might be practised in vain with the weakened Jennerian lymph—at present practically the only stock available in this country; and hence the fact for which Dr. Warlomont vouches—that during the various epidemics of smallpox which have occurred in Belgium during the eleven years in which he has practised animal vaccination, not a single case of that disease has been known to occur in any person who had been vaccinated with animal lymph.

ART. XVI.—*On Thoracic Aneurism Simulating Mediastinal Cancer.*^a By THOMAS WRIGLEY GRIMSHAW, M.A., M.D., Univ. Dubl.; F.K.Q.C.P.; Physician to Steevens' Hospital, &c.

THE difficulties which surround the diagnosis of intra-thoracic tumours are so great that any case which may tend to throw light upon the question must be considered of value.

In *The Dublin Medical Journal* for May, 1870, I published a paper, read before the Medical Society, "On a Case of Malignant Disease of the Thorax and Stomach." In that paper I described a case where a diagnosis of thoracic aneurism was made by an eminent physician, but the disease proved to be mediastinal cancer. In a case recently brought before the Medical Society by Dr. Finny,^b a case of malignant disease within the thorax also simulated aneurism. The case which I am now about to bring under the notice of the Society was diagnosed by me, in the first instance, as a mediastinal tumour either of a strumous or malignant character. As the case proceeded I arrived at the conclusion that it was one of mediastinal cancer, involving the upper part of the right lung, pressing upon the laryngeal nerves, and finally infecting the glands of the right side of the neck, and probably producing extensive secondary deposits in the thoracic viscera. The case was as follows:

^a Read before the Medical Society of the King and Queen's College of Physicians in Ireland, on Wednesday, April 2, 1879.

^b See *Dublin Journal of Medical Science*, Vol. LXIII., page 328. April, 1877.

Mary H., aged sixty, occupation a vegetable dealer (she carried a basket of vegetables on her head when pursuing her occupation), admitted to Steevens' Hospital on October 14, 1878. She had, a year before, been under my care for a short time, when she suffered from an attack of acute bronchitis, with an unusual amount of laryngeal irritation. On that occasion she left the hospital before she was completely well, and I expressed an opinion that she had something more than bronchitis—probably enlarged bronchial glands. On admission the second time she complained of a choking sensation, with violent fits of paroxysmal cough and profuse expectoration. Her face presented a slightly puffed appearance; her paroxysms of coughing were generally brought on by swallowing; she said her food tickled and choked her, but did not hurt her when she swallowed. During each coughing fit her face became congested, and the superficial veins on the thorax became distended. She stated she had suffered from the cough for six weeks before admission, and had come to the hospital because “she had been cured the last time.” The patient was much emaciated, although she stated she had a fair appetite, and had taken plenty of food. A physical examination of the chest discovered a loud laryngeal stridor; over the rest of the chest sibilant and sonorous râles were to be found in various places; respiration was generally diminished. On the right side of the sternum a rough systolic murmur was audible over the second intercostal space. This murmur was limited to a small area. On percussion a certain amount of dullness was detected extending from the left margin of the sternum to the middle of the right clavicle in front and downwards for between $2\frac{1}{2}$ to 3 inches. The inter-scapular space behind was duller than normal, but there was no discernible difference in the percussion note on the two sides. No difference was observable in the size of the pupils, and no enlarged glands could be detected in the neck. The sputum was extremely viscid, and frequently streaked with blood. Dr. Bookey, on several occasions, minutely examined the sputum microscopically, but nothing specific could be discovered.

On October 15th two leeches were ordered to be applied over the top of the sternum, and 20 grains of bromide of potassium were administered every third hour with a view of relieving the spasm. This treatment appeared to produce some amelioration of the spasmodic cough. The patient remained in much the same state for some time; the puffiness of the face seemed slightly to increase.

On November 3rd she became sleepless at night, and chloral was ordered at night in combination with bromide of potassium.

On November 8th there was observed for the first time a swelling about an inch and a half wide above the middle of the clavicle on the right side of the neck; it was soft and elastic, and gave the impression to the finger of a cyst containing air. On pressing deeply around this

tumour, some hard and tender masses—apparently indurated glands—were to be felt.

On November 9th the swelling appeared more diffused, but well marked.

On November 13th the tumour had become hard, and extended for about two inches along the margin of the clavicle, and upwards for about an inch and three quarters; it was distinctly nodulated on the outer aspect. The tumour had a pulsating movement; this movement was manifestly communicated by the neighbouring vessels, and was not *in* the tumour nor distensile. There was no murmur audible over the tumour, and pressure upon it caused considerable and sharp pain. The patient gradually became weaker—she refused food, became comatose, and died on November 20th.

A *post mortem* examination was made twenty hours after death, when the following conditions were found:—Curvature of diaphragm normal; anterior mediastinum normal; both lungs slightly adherent at apices, and congested, especially the right; heart fatty; valves competent; cervical glands slightly enlarged. The internal jugular vein of the right side was enormously distended. The arch of the aorta was found to be dilated through its entire length, and contained atheromatous and calcareous deposits. The transverse portion of the arch and arteria innominata were involved in an aneurismal tumour. This tumour pressed upon the commencement of the superior vena cava and both the innominate veins at their junction with the cava. The junction of the subclavian and jugular veins of the right side was occupied by a solid coagulum extending upwards through the whole length of the internal jugular vein. The right pneumogastric nerve and its recurrent branch were both pressed upon by the tumour. The left pneumogastric and its recurrent branch were also pressed upon. The sac was occupied by a laminated clot, with a secondary clot extending to the aortic valves.

It will be observed from the foregoing account of the case that the only positive signs of aneurism present were dulness on percussion, a systolic blowing murmur, and signs of pressure within the chest—namely, laryngeal spasm and puffiness of the face; the latter, however, seldom appearing except after a severe fit of coughing. The dulness in the interscapular space—the wasting, bronchitic râles, and ropy expectoration streaked with blood—all appeared to me to justify the conclusion that the case was one of malignant disease of the mediastinum. The occurrence of the nodular swellings in the neck during the last fortnight of life confirmed this view. Aortic murmurs, in conjunction with intra-thoracic tumours other than aneurisms, are so common that the presence of the

murmur over the aorta rather tended to confirm than contradict my diagnosis. The pulse tracings (see Figs. 1 and 2), no doubt,

Fig. 1.

Tracing from Right Radial Artery, October 10, 1878.

Fig. 2.

Tracing from Left Radial Artery, October 10, 1878.

pointed to diseased arteries, but only of such a character as are frequently met with in persons of the age of the subject of these remarks. Indeed the condition of aorta met with on *post mortem* examination would fully account for the character of the sphygmograms even if a marked aneurism had not been present. For my own part I cannot at present see how I should make a more correct diagnosis if a case with identical symptoms were to come under my notice.

ART. XVII.—*Abdominal Cancer Simulating Aneurism.*^a By
ROBERT SAMUELS ARCHER, A.B., M.B., Dubl.

THE case about to be related presented so many of the phenomena usually found in connexion with aneurism of the abdominal aorta, that it occurred to me a short record of it might possibly prove not altogether uninteresting.

Abdominal aneurism is an affection which not infrequently presents many problems of diagnosis difficult of solution to the clinical observer. More especially perhaps is this the case in the earlier stages, before the sac has attained a size of sufficient dimensions to become manifest externally by a pulsating tumour, accompanied by a murmur, &c. However, even in these cases a more or less constant boring pain in the back, with periodical exacerbations, and a localised bruit occasionally heard (after careful examination) along the course of the spine, may indicate the true nature of the lesion, even at a very early stage of its

^a Read before the Liverpool Medical Institution, April 3, 1879.