the remarks now offered, I have not alluded to other questions involved in the comparative merits of flap and circular amputations, such as the mortality after each, the chance of secondary hæmorrhage, of union by the first intention, &c. These I shall consider at another time.

In conclusion, Gentlemen, should you decidé on giving a preference to the flap operation, when in after years you may be called on in practice to make the decision, I can safely recommend to you its performance in the way I have described.

PULMONARY EMPHYSEMA AS A CAUSE OF DEATH.

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—The following cases of pulmonary emphysema will probably be deemed interesting, as bearing upon the question considered in the memoir of M. Prus, noticed in your Number for June 4, p. 176.

I am, Gentlemen,
Your obedient servant,
R. T. HUNT.

Manchester, June 20, 1842.

CASE I.—Rachael Rigby, aged one year and ten months, a strong, healthy child, has suffered from pertussis, with occasional dyspnœa, for three weeks. She has had no vomiting; her appetite has continued good, and she has run about as usual.

January 16, 1833, Five, p.m. Whilst out of doors, she was suddenly attacked with severe dyspnœa, the character of which was quite different from any that I had previously observed in chest affections. Inspiration and expiration were equally difficult, and both accompanied by violent and continuous struggles, which affected all the limbs; inspiration had a hoarse, croupy sound; every paroxysm of coughing produced a deep scarlet suffusion of the face, succeeded by lividity, with the lips of a deep purple color; the pulse was too rapid to be counted; she was perfectly sensible, and appeared to suffer most acutely. Six leeches were ordered to be applied to the chest, and eight grains of ipecacuanha to be taken immediately, and frequently repeated. The ipecacuanha had no emetic effect, and there was nearly three hours delay before the leeches were applied, in which time the symptoms, if possible, had become more aggravated. The bleeding, although very free, produced neither coolness of extremities nor the slightest faintness; and at half-past eleven, p.m., the child died, the symptoms having continued the same nearly to the last.

Autopsy, 17th.

Upon opening the thorax, the lungs, instead of presenting their usual collapsed appearance, not only completely filled the pleural sacs, but even rose above the level of the divided cartilages. The lungs were of a light reddish colour, and their pleural surfaces bright and shining, and showing no trace of adhesions. At first they appeared quite healthy, but upon closer examination there were distinctly seen beneath the

pleura, occupying every visible part of the lungs, minute pearl-like globules, smaller than the head of a pin, all of the same size, and apparently constituting what Laennec has called vesicular pulmonary emphysema, or dilatation of the minute air vesicles. None of these vesicles were prominent upon the surface of the lungs. Rupture of a few vesicles was found where the pleura pulmonalis is connected with the pericardium, and the irregular form of these small collections of air, thus extravasated, at once distinguished them from those which I have called the dilated vesicles. The trachea and bronchi were not inflamed, but the interior of the larynx was slightly so, and near the rima glottidis a minute speck of lymph-like mucus was attached to the mucous membrane. The heart and abdominal and pelvic viscera were healthy, but all the abdominal veins were much gorged with blood. The brain was not examined.

CASE II.—Mrs. J., aged about thirty-four, mother of several children, had enjoyed good health for several years, but had a tendency to plethora, and was of a florid complexion. She had been suffering from a troublesome cough since January 2, 1835, for which a blister, a common linctus, and a mucilaginous mixture, with small doses of potassio-tartrate of antimony, had been prescribed. On the 6th, the cough having increased, and being accompanied by dyspnœa, a sensation of weight in the chest, quick pulse, and checked urinary secretion, she was bled from the arm to syncope, and the dose of potassio-tartrate increased. She was much relieved, and continued improving until the evening of the 8th, when the cough suddenly became extremely harassing, and the dyspnœa very urgent.

When I saw her the symptoms had assumed a similar character to those described in the previous case, with two exceptions: the colour of the countenance, which to the last remained of a deep scarlet, never assumed the livid appearance; and free perspiration of the whole cutaneous surface, but more particularly of the head and face, existed. A mustard poultice was applied to the sternal region, and she took during the night sixteen grains of the potassio-tartrate of antimony, which produced only slight vomiting, and she died about six, a.m., on the 9th, having continued perfectly sensible to the last.

Autopsy.

The thoracic viscera presented characters so nearly similar to the former case, that a repetition is unnecessary.

CASE III.—About three years since, through the kindness of my friend and colleague, Mr. Lynch, I witnessed the examination of the following case of emphysema:—A home patient of the Lying-in Hospital, a strong, plethoric female, about thirty years old, at the full period of pregnancy, felt so ill that she sent for her midwife, who, when she came, told her there were no signs of labour, and that she must send for the surgeon. When Mr. Lynch arrived the female was dead. All that could be learned from the friends was, that she had lately suffered from cough, which had suddenly become very harassing and painful, and that up to the time of her death she had been perfectly sensible.

There were no appearances in the uterus or appendages indicative of the commencement of parturition or of disease. All the abdominal veins were much

distended with blood, and, upon opening the thorax, the lungs were found completely filling the chest, not in the slightest degree collapsed, and presenting the appearances characteristic of general pulmonary emphysema already noticed. The cranium was not examined.

In all these cases the cough had suddenly become much aggravated, and in the two which I saw before death, the extreme difficulty of breathing was first noticed after a more than usually severe paroxysm of coughing. The peculiar description of dyspnoea, inspiration, and expiration being equally difficult, as well as the circumstances connected with the symptoms which immediately preceded death, when considered in conjunction with the state in which the lungs were found upon examination, appear to me to warrant the conclusion that the sudden supervention of this general emphysematous condition of the lungs was the cause of death, and that this injury was the result of the violent paroxysms of coughing. Upon comparing the symptoms which occurred in these cases with those which precede death in cases of acute bronchitis, pneumonia, pulmonary apoplexy, and croup, a marked difference will be observed. In the last stage of acute bronchitis inspiration is difficult, the usual quantity of air not being admitted into the lungs, and expiration is more forcible than in the natural condition of this function; but this does not in the least resemble the dyspnoea depending upon emphysema. The pallid and frequently œdematous state of the face and general surface in the former affection, together with the coldness of the extremities, the absence of severe pain, and the half torpid condition in which the patient lies, are all circumstances widely different from those accompanying emphysema. Symptoms equally diagnostic in other affections of the chest might easily be adduced, or the stethoscope, which was not employed in either of the foregoing cases, would at once indicate the presence of emphysema.

The extent to which circulation within the chest is impeded by permanent dilatation of the air vesicles, or, according to the opinion of M. Prus, by general extravasation of air into the cellular texture of the lungs, when the whole of both lungs has become thus affected, may be readily conceived. Life cannot long continue when so much air remains in the lungs after each expiration, that only a very small quantity of venous blood can enter the lungs from the heart. The small proportion of venous blood which, under these circumstances, is allowed to pass into the lungs, appears to account for the redness of the face, so different from the pallid, livid, or leaden hue, which is usually observed at the close of other fatal diseases of the lungs. It may be as well to state that this brief notice refers exclusively to general emphysema of both lungs, and that it is communicated merely with the view of corroborating the opinion advanced by M. Prus, "that general pulmonary emphysema may cause sudden death."

ON
TUMOURS PRODUCED BY ENLARGEMENT
OF THE
EXTERNAL ABDOMINAL VEINS,
AND DEFENDANT ON DISEASE OF THE LIVER.

By THOMAS BEVILL PEACOCK, Esq.,

Pathologist to the Royal Infirmary, Edinburgh.

A varicose condition of the external abdominal veins, has fallen under the notice of most pathologists. Boyer* quotes from Severin a case in which a tumor existed in the hypogastrium, formed by the interlacement of enlarged veins, and states that he had himself seen one of a similar description. Reynaud† has detailed in the "*Journal Hebdomadaire*" the particulars of a case in which the varicose condition was traced to a cancerous growth, producing obliteration of the left iliac vein; and Cruveilhier mentions a somewhat similar instance in which the common iliac veins were obliterated by the pressure of an ovarian tumor, and gives a representation of the appearances presented in a case in which the umbilical vein was also found greatly distended, either from its canal never having been obliterated, or from its having again become pervious. With few exceptions, however, the cause giving rise to the dilated condition of the veins, has either not been ascertained, or has consisted, as in the cases of Reynaud and Cruveilhier, in some obstruction in the large venous trunks of the abdomen; and it is only very recently that Dr. Stokes,‡ in a communication to the Pathological Society of Dublin, drew the attention of the profession to this peculiarity, as present in some cases of ascites. Of the two cases referred to by Dr. Stokes, in one the varicose condition of the veins disappeared on the removal of the ascites, the other remained under treatment.

CASE I.—Philip Taylor, aged thirty-eight, following the occupation of a groom, and of very intemperate habits, first came under treatment in the Chester Infirmary, in January, 1838, in consequence of a kick from a horse; at this time he also laboured under some degree of jaundice, with œdema of the lower extremities, and slight ascites. From these symptoms he recovered in a short time, and resumed his employment, but it was not long before he again applied for relief; the anasarca had then become extreme, the legs being not only swollen, but exuding an ichorous secretion, and the jaundice being also more marked; in the epigastrium there existed a swelling, elastic and movable, under the integuments, which, when he was in the recumbent position, was smaller and less conspicuous, but became full and prominent on his standing up. Into this tumor a large vein passed up from the groin on each side, and these vessels by their union seemed to constitute its chief bulk, and then to pass down below the edges of the ribs. The veins coming from below were fully the size of the fore finger, and were remarkably contorted. The tumor was at least ten inches in diameter, and was

* *Traité des Maladies Chirurgicales*, t. 2, p. 280.

† Andral's *Pathological Anatomy*, Trans., vol. 2, p. 415; a second case, related by Reynaud, involving the cava and Portal veins, and attended with ascites, is referred to by Dr. Stokes, but I have not been able to see the original paper.

‡ *Dublin Journal*, vol. 20, p. 482.