

and the symptoms were those associated with pyelitis of the puerperium—namely, remittent fever, rigors in 56 per cent. of cases, urinary symptoms in 38 per cent., usually very slight and of short duration, and abdominal discomfort and distension. Predisposing factors were difficult delivery and albuminuria of pregnancy. In 52 per cent. of cases the time of onset was before the third day, and in 34 per cent. the eighth day or later. In over 50 per cent. of cases an organism, identical to the one in the blood, could be isolated from the faeces. It seemed likely that the organism usually spread to the vagina over the perineum and by means of lacerations to the blood. These cases had been termed septicaemia, because the organisms were demonstrated repeatedly in the blood stream, and as soon as the blood cultures became negative the temperature fell. Stasis was rarely found in the ureters in these cases, and the urinary infection which was produced cleared up quickly. Pyelitis of the puerperium could be differentiated into two groups: (1) exacerbation of a pre-existing infection, and (2) primary infection in the puerperium. As a rule, in Group 1 the pyrexia occurred just after delivery and settled down quickly. In Group 2 the pyrexia usually came on later in the puerperium. Seventeen per cent. of puerperal women were found to have residual urine, which might have become infected, and result in ascending infection.

#### Blood Pressure and Decubitus

Dr. BARCLAY DICKSON read a paper in which he said that while carrying out a certain treatment on women in the later months of pregnancy it was noticed incidentally that the blood pressure taken with the patient lying on her back was appreciably higher than with the patient lying on her side. Neither treatment nor time had anything to do with the difference, as the two pressures were taken within a couple of minutes of each other, immediately after treatment. The preliminary investigation was done on two patients suffering from pre-eclamptic toxæmia. It now remained to find out if the same difference in the two pressures, back and side, occurred in all cases, pregnant or non-pregnant, man or woman. A series of thirty cases was examined in the Royal Maternity and Simpson Memorial Hospital, Edinburgh, the series including two males. The rest of the series was taken indiscriminately from the wards. The total average difference in the systolic pressures was 10.9 mm. Hg, and the total average difference in the diastolic pressures was 12.15 mm. Hg, in both cases the side pressure being the lower. Since a difference in the two pressures was obtained whether pregnancy was present or not, the cause of the difference could not be solely a mechanical one, due to the compression of the aorta by the pregnant uterus. It was therefore thought to be due to a stimulation of the sympathetic plexuses connected with the thoracic and abdominal arterial system by the weight of the viscera—heart, lungs, and gastro-intestinal tract. This stimulation would naturally come into force only when the patient lay on her back, and would cease on her taking up the side position. That injurious stimulation did not occur was indicated in nocturnal incontinence of urine and nocturnal emissions. Both conditions occurred mostly when the patient was lying on the back, and both conditions had been cured when the patients were forced to sleep on the side. There was evidence to show that in hyperpiesis the diastolic difference—the difference between the back and side diastolic pressures—was very small; in one case quoted it was only 4 mm. Hg, and the patient died later from cerebral haemorrhage. The average diastolic difference in the above series was 12.15 mm. Hg. Dr. Dickson wondered if it might be possible to use the diastolic difference as an aid to immediate prognosis in any given case of hyperpiesis of whatever origin.

#### Corrigendum

In our report last week (p. 499) of the discussion on haematemesis, at the Royal Society of Medicine, the remarks of Mr. John Morley of Manchester were attributed in error to Mr. A. S. Morley.

## CORRESPONDENCE

### Silicosis and South Wales Colliers

SIR,—In your issue of March 10th (p. 452) Professor J. S. Haldane suggests that the importance of silicosis, as a disease of South Wales coal miners, is greatly exaggerated, and rejects the "great majority of the diagnoses of the medical boards."

In 1930, writing on coal-miner's lung, in the *Journal of Pathology and Bacteriology*, we published figures of the pathological, histological, and chemical findings in thirty-four persons, divided into three clinical classes as follows:

*Class A.*—Twelve coal miners dying of chronic pulmonary disease after long disablement.

*Class B.*—Sixteen coal miners dying from causes other than chronic pulmonary disease and not known to have any pulmonary disablement.

*Class C.*—Six other industrial workers as controls.

The "total silica" values for these groups, as set forth in our table, may be summarized as follows:

	Total Silica in Grams	Silica percent- age of Dried Lung	Silica percent- age of Ash of Lung	Ratio of Combustibles to Silica
Class A ...	9.4	2.36	27.1	38 to 1
Class B ...	4.4	1.24	16.3	71 to 1
Class C ...	0.29	0.13	2.4	720 to 1

It will be seen that the lungs of coal miners, as a group, contained a very much greater amount of "total silica" than those of the "other industrial workers," the advanced cases in Class A that had lived on to the dyspnoic stage showing figures entirely comparable with those of fatal cases of silicosis in South Africa, while the colliers who had died of intercurrent causes before reaching the dyspnoic stage still exhibited a markedly abnormal amount of "total silica" in their lungs. From the clinical point of view the reports of cases of silicosis in the South Wales coalfield by Dr. N. Tattersall (*Journ. Indust. Hyg.*, 1926, viii, 466) and of the medical staff of the King Edward VII Welsh National Memorial Association (*ibid.*, 1931, xii, 19) appear to establish the existence of a condition corresponding to silicosis in South Wales. That the inhalation of coal dust alone, even in its hardest variety, anthracite, fails to produce any serious degree of lung fibrosis is rendered probable through specimens and analyses in our possession, and has recently been established, on radiological grounds, by the report of the Industrial Lung Committee (*British Medical Journal*, February 3rd, 1934, p. 198).

While medical boards are not infallible, it must, we think, be admitted that the inhalation of the stone dust to which the coal miner is exposed in South Wales is capable of leading, in many cases, to a state of lung fibrosis which, depending as it does on silica, free or combined, is most conveniently described as "silicosis." Whether the silica causing this condition is "free" or "combined" remains an important question for future investigation, but does not matter much to the working collier. Professor Haldane considers that "if there were actually a large number of cases of real silicosis . . . among South Wales colliers their phthisis death rate would be considerably increased above a normal figure." To this we would reply that Professor Haldane himself has pointed out that "it is difficult to resist the conclusion that, in some way, the inhalation of the dust in coal mines tends to prevent phthisis." It is to some such preventive action of coal dust that the low tuberculosis death rate in colliers may yet prove to be due, and we cannot accept