

seize the patient in his sleep. Indeed, throughout the malady, the asthma is more terrible at night, as cardiac dyspnoea generally is likewise; still, in its repetition, uræmic asthma becomes more and more irregular in its recurrence, and finally may not wholly disappear for one hour out of the twenty-four. What happens is something as follows. The patient, if awake, becomes aware that his respirations are quickening and are shallower. The distress increases, and a throbbing labouring action of the heart intensifies it. The countenance now becomes anxious, apprehensive, or even terrified, and a somewhat peculiar general muscular restlessness comes on, which seems to be something more than the mere striving for breath or air. Now, with this intense distress, which anon becomes more than this—an agonizing, almost mortal conflict—the face is not puffed, congested, and blue, but nipped and pale, and the very lips themselves are blanched. This, in my experience, is always the case, and the observation is a very instructive one. Moreover, in many instances, though by no means in all, a more or less profuse sweat is of the essence of the attack, comes on, that is, with the primary phenomena, and not as a mere consequence of effort or fear. In two cases, I remember that an outbreak of perspiration upon the usually harsh skin was the very first symptom in the train of symptoms which constituted the attack. In other cases, sweating is unimportant in degree, or is even absent. To the ordinary observer, then, the patient is alarmed, and his aspect is apprehensive and pallid; he is extremely restless; he sits upright and breathes shallowly and rapidly; he speaks in gasps or makes rapid fretful signs, and not infrequently he is covered with profuse cold perspiration. To these observations the physician will add as follows: The temporal arteries stand out like pulsating cords, the radial and tracheal arteries are of tendinous rigidity, and the blood-stream is forced into these and other arteries under great pressure; the big overwrought heart heaves over a wide area of the left chest and seems to threaten to burst its bonds. There is as yet little or no cough, and but little sound of phlegm in the air-passages. The chest expands duly, and, on

listening over the lungs, the air is heard to enter freely and rapidly over the whole of them, unless their capacity be lessened by some previous disease. After this contest has gone on for a longer or shorter time, the attack relaxes its hold, the respirations become easier, words and sentences are spoken, the face recovers some tranquillity, and there is usually some expectoration. This expectoration is frothy mucus, often tinged with blood; and, in one case under my care, every violent attack was followed by distinct pulmonary apoplexy in patches large enough to be mapped out by physical examination. In this case, the hæmoptysis was, of course, considerable. In all cases, the lungs fill with *râles* before the termination of the attack. Such are the characters of pure uræmic dyspnoea as seen apart from complications.

Let us now ask ourselves what explanation we can find as we sit watching this awful suffering. The first thing that strikes us is, that the condition is not one of cyanosis, but rather of pallor, shrinking, and incipient collapse; it so much resembles an attack of ordinary asthma in these respects, that the name uræmic asthma may properly be given to it. It is on listening to the chest that we find the most remarkable contrast with common asthma, in the perfect permeation of the pulmonary tissue by the inspired air. It is very strange to witness this strife for breath, as it seems, while, at the same time, we hear the air passing freely throughout the lungs. Indeed, the patient tells us, and we ourselves may see that he is not, as in asthma, unable to draw his breath, but that the drawn breath brings him no relief. It is clear that the air and the blood do not meet in the air-cells, but that the fault does not lie with the air. It must be the blood, then, which does not keep its appointment. Now, in an uncomplicated case, there is no permanent obstruction to the passage of the blood through the lungs; indeed, we know that, in a short time, the air and blood will come again together and the patient will find peace. How is this? Our thoughts now turn to asthma again, and we think of paroxysmal disorders in general, and analogy gradually leads us to suspect that, as in these so in uræmic