

but at times went up to 101° or 102°. For the past three weeks there has been no hæmorrhage, and his general health has improved, the headaches have disappeared and he takes nourishment better. His present condition is as follows:—You notice, in the first place, the extreme bloodlessness of the exposed regions, particularly marked in the face; but I would call your attention to a peculiarity in the colour of the skin, which is well marked in this case, and has been so in all of the cases which I have seen in this city. It is not blanched from simple bloodlessness as in the pallor of fear or hæmorrhage; but there is a peculiar sallow, dirty yellow or lemon tint, not the hue of jaundice, and, moreover, the conjunctivæ are not stained. It is also quite distinct from the greenish yellow tinge of the skin in chlorosis. The patient still has a fair amount of subcutaneous fat, though he has lost a good deal of flesh in the past three years. He is weak, easily tired, and it has been as much as he could do to get from the ward to the lecture room. His breath is short on exertion, and he feels faint and dizzy, when he stands for any time. The appetite is poor and the digestion weak, but he has never had vomiting. The bowels are regular, no diarrhœa. Pulse is 84 per minute, soft and weak. On listening to heart sounds, which are very distinct, there is a blowing systolic murmur at the base, evidently hæmic in character, and the venous hum is loud in the neck. There is no evidence of any pulmonary trouble. The examination of abdomen is negative; liver dulness, normal. Spleen dulness, about four inches in vertical diameter, edge cannot be felt under the ribs. Urine clear, reaction, acid, sp. gr. 1015. There are no cerebral symptoms; he has suffered from headaches, but not latterly. On examination of the eyes, retinal hæmorrhages are seen, and also pigmented spots, the result of old extravasations.

The examination of the blood yields the following results: With Gower's Hæmacytometer, red corpuscles per cubic millimetre, 970,000, 19·4 per hæmic unit, instead of about 5,000,000 in the c. m. The hæmoglobin, as estimated by Gower's Hæmachromometer, is only 20% of the normal, and about the same

percentage is obtained by Quincke's apparatus. The blood drop, when expressed, has not the full rich colour and consistency of normal blood, but is paler, thinner and watery. Under the microscope, the corpuscles show a great inequality in size, some are larger than normal, others very much smaller. Many are very irregular in outline. The colour of individual corpuscles is pretty good, a few nucleated red corpuscles exist. The white corpuscles are not materially increased, the proportion, when counted, 1 to 230 red. There is an entire absence of Schultze's granule masses, so common in the blood of debilitated individuals. I have put, for purposes of comparison, the blood of an anæmic girl under another microscope and you will be able to perceive a marked difference.

Summing up the chief symptoms, we have,—

1. Profound anæmia without any obvious cause.
2. Cardiac and vascular murmurs.
3. Repeated attacks of epistaxis, which began originally after the anæmia was established.
4. Retinal hæmorrhage.
5. Peculiar alterations in the histological character of the blood.

The clinical picture which Addison has left of the disease is unequalled, as you may gather from the following extract:—"It makes its approach in so slow and insidious a manner, that the patient can hardly fix a date to his earliest feeling of that languor which is soon to become so extreme. The countenance gets pale, the whites of the eyes become pearly, the general frame flabby rather than wasted; the pulse, perhaps, large but remarkably soft and compressible . . . ; there is an increasing indisposition to exertion with an uncomfortable feeling of faintness, or breathlessness on attempting it; the heart is readily made to palpitate; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums and tongue, seem bloodless; the flabbiness of the solids increases; the appetite fails; extreme languor and faintness supervene, breathlessness and palpitations being produced by the most trifling exertion or emotion; some slight œdema is probably perceived about the ankles; the debility becomes extreme."\*

\* Addison's Works, New Sydenham Society, p. 212.