

spleen and kidneys, and a marked reaction obtained. In microscopic sections of the liver this iron reaction was practically confined to the outer zone of the lobules. This same area of the lobule was the seat of marked fatty degeneration, as was well demonstrated by the use of sudan iii, and also by osmic acid. The heart showed most advanced fatty degeneration. The kidneys showed fatty degeneration of both tubular and glomerular epithelium and the epithelium of many of the convoluted tubules contained iron pigment. The mucosa of the stomach showed a condition of atrophic gastritis, the glands being pushed apart by fibrous tissue and many of them destroyed. The epithelium lining many of the peptic glands contained numerous fat particles. The mucosa of the small intestine (ileum examined) showed no marked change. The marrow of the femur in cover glass films showed the marrow cells to be actively proliferating, but many of the forming blood corpuscles are over-sized and their nuclei stain but faintly (megaloblastic degeneration).

In view of Hunter's recent work, I regret that the tongue was not removed and submitted to microscopic examination. This case illustrates very well the morbid anatomy of true pernicious anæmia, as will be seen by contrasting these findings with the list of changes given as characteristic of this affection.

As to the symptoms and clinical signs nothing can be added to the descriptions found in every text book. The point that has always struck me in examining these cases is the peculiar yellow tint of the skin while the patient is not at all emaciated. In view of the finding of Dr. Hunter more careful examination will have to be made of the condition of the cavity of the mouth. This factor is generally neglected as the condition of the mouth is generally looked upon as secondary to stomach involvement, and not as a factor of any importance. Apart from the general features of anæmia the diagnostic factors lie in the condition of the blood. Examination of the blood will show very characteristic features, but it should be remembered that often a series of examinations are necessary