

one micro-organism the slightest change of focus would bring others into view, so that his slides show but about 1-20th of the number recognisable in any given field.

As to whether the micro-organisms in the human and in the bovine liver are identical it is impossible for me to affirm. At Johns Hopkins, as in our own hospital and in a large number of foreign hospitals, not to mention the leading hospitals in the old country, it is now the custom to obtain cultures from half a dozen or more regions, including the liver, in every autopsy performed within fifteen hours after death. And, while the methods employed for obtaining cultures are in many cases faulty, to the extent that an insufficient amount of tissue juice is taken, it seems to me unlikely that had this form been cultivable upon the ordinary media, it would not before now have been isolated. Nevertheless, there is this to be said, that very frequently the colon bacillus grows upon cultures made from the liver; isolated colonies of the micro-organisms from the Pictou cattle disease, while growing more slowly, are not unlike those of the colon bacillus, and thus possibly the micro-organism if growing in a manner similar to that of the Pictou cattle disease, might be neglected on account of this similarity in appearance.

It so happens that here in Montreal cases of the disease are few and far between; five cases only have come under me in four years, and in a series of 934 autopsies made during twelve years at the Montreal General Hospital and indexed by Professor Wyatt Johnston, I find that altogether 31 cases of cirrhosis of the liver are recorded and 14 of the cirrhotic and fatty liver, with one recorded as "hypertrophic cirrhosis." I have thus thought it wise to publish these observations, even though I can at the present moment make no absolute statement with regard to the isolated micro-organism and its character, beyond the statement that, as already mentioned, in one agar tube made from the live juice, I was able to recognise the form, although in not very great numbers and with the absence of any visible growth.

Lastly, as to the cases in association with which I have found this micro-organism. If future observers confirm the observations given above, then we must conclude that many of the divisions and distinctions attempted to be drawn between the forms of advanced cirrhosis of the liver, must be broken down for, in the first place, I have found the same appearance in the large liver with moderate granulation or slight hobnailed condition, which some would speak of as "hypertrophic cirrhosis," as again in the small contracted typical hobnailed liver; in cases frankly multilobular with sharply defined bands of connective tissue cutting off relatively large areas of liver substance