

be termed a pure giant-celled rhabdomyosarcoma is unknown, or, at least, has so far failed to gain recognition as a separate entity. By great good fortune, I am indebted to my colleague, Dr. Hamilton White, for an exquisite example of this very condition in a trout caught by him in October. The fish is the "red trout," and was caught in Balsam Lake, Montfort district, in this province. Save for the tumour, it was a well grown individual, 14 inches long, and weighed about three-quarters of a pound. It will be seen that some 4 cm. behind the main dorsal fin and 1.5 cm. in front of the posterior dorsal fin, there is, on the left side, near the middle line, a very definite tumour. When brought to the laboratory, this was covered by a healthy unbroken skin, and projected some 1.5 cm. above the general surface.

On dissection, the tumour was found to be almost spherical in shape and 3 cm. in diameter lying to the left of the dorsal spines and not attached to these. A layer of muscle appeared to pass over it, and it had a semi-fluctuating feel. It was well defined, and was easily separated from the surrounding tissue.

On section, the tumour is found to be composed almost wholly of giant cells, varying, it is true, greatly in size and shape. The smallest cells may contain but two or three nuclei, the largest, without exaggeration, many hundred. There is no definite capsule, but at the periphery there is a zone exhibiting a moderate grade of small-celled infiltration, in which the tumour cells proper infiltrate between still recognizable striated muscle elements. This infiltration, it is noted, extends between the dorsal spines to the right side to a slight extent. These more normal muscle fibres are easily distinguishable; while shrunken, they exhibit regular striation and well marked longitudinal fibrillation. The interesting part is that in making a careful study of these remarkable giant cells certain of them are of very great length as compared with their breadth, and the nuclei are gathered more particularly at one pole. Such cells recall in a very striking manner the buds or processes projecting from the muscle fibre of a mammal in the process of regeneration after injury and in not a few of them the part of the cell furthest from the grouped nuclei shows well-marked longitudinal fibrillation, while here and there irregular but distinct transverse striation is to be made out. Studying the various transitional stages, there can be no doubt that here we are dealing with a rhabdomyosarcoma, and, as I have already indicated, we have encountered a new form of muscle tumour, but one, which from embryological considerations, is also to be termed "natural" and to be expected. We have found this in one of the lower animals, and it now remains to be seen