A Macrophage at Work

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In this image a macrophage in cerebrospinal fluid (CSF) is caught doing what it does best; cleansing the environment of objects that don’t belong. The patient, a 6-month-old girl, initially presented with choking and feeding difficulty. Brain MRI revealed a large tumour in the right posterior fossa, originating from the inferior aspect of the right cerebellar hemisphere. She underwent surgery to remove the tumour a few days before the CSF was sampled. Histologic examination confirmed the diagnosis of Atypical Teratoid Rhabdoid Tumor.

The macrophage is seen stretching its pseudopods –like a well-trained athlete reaching out to make a catch– to grab a red blood cell (RBC) (short arrow). Particles of digested debris from other RBCs are noted within its cytoplasm (long arrow) – evidence that this phagocytic act had been performed several times before. Macrophages, via chemotaxis, play a significant role in cleansing surgical sites by removing debris and organisms.

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