

A STORY OF HISTOPATHOLOGICAL HUNT

Pages with reference to book, From 116 To 118

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It all started one fine Sunday morning. I was absorbed in reading an interesting book when one of my friends opened the door and asked Do you want to join us on a hunt for Owl eyes? Although I immediately knew which one I still asked him which one?. The same old owl eyed R.S one he replied. I immediately accepted the offer. My heart rate increasing with excitement and thrill, which every hunter knows. I quickly gathered all my instincts and insights and rushed behind him. We all amateur hunters took our positions on the multi head microscope, OK, Lets start. Somebody said. I flicked on the light switch and placed a slide on the viewing stage. Spread before us was the panoramic view of a lymph node. We scanned the field, roaming our eyes over different nooks and corners. Let us go closer. Somebody said impatiently. Shh, be quiet, you will scare away the owl eyed one. I changed the power of the lens to get a closer view. Looking carefully for any resemblance to our prey, we peeped into the intricacies of the lymph node architecture where owl-eyed RS cells could hide. The background was ideal, there was a sprinkling of eosinophils, plasma cells and histiocytes. These cell species are usually found in the company of our immediate quarry. There is a mononuclear Hodgkin cell, somebody excitingly said. Yes, there sat a cousin of a RS cell, (Figure 1),

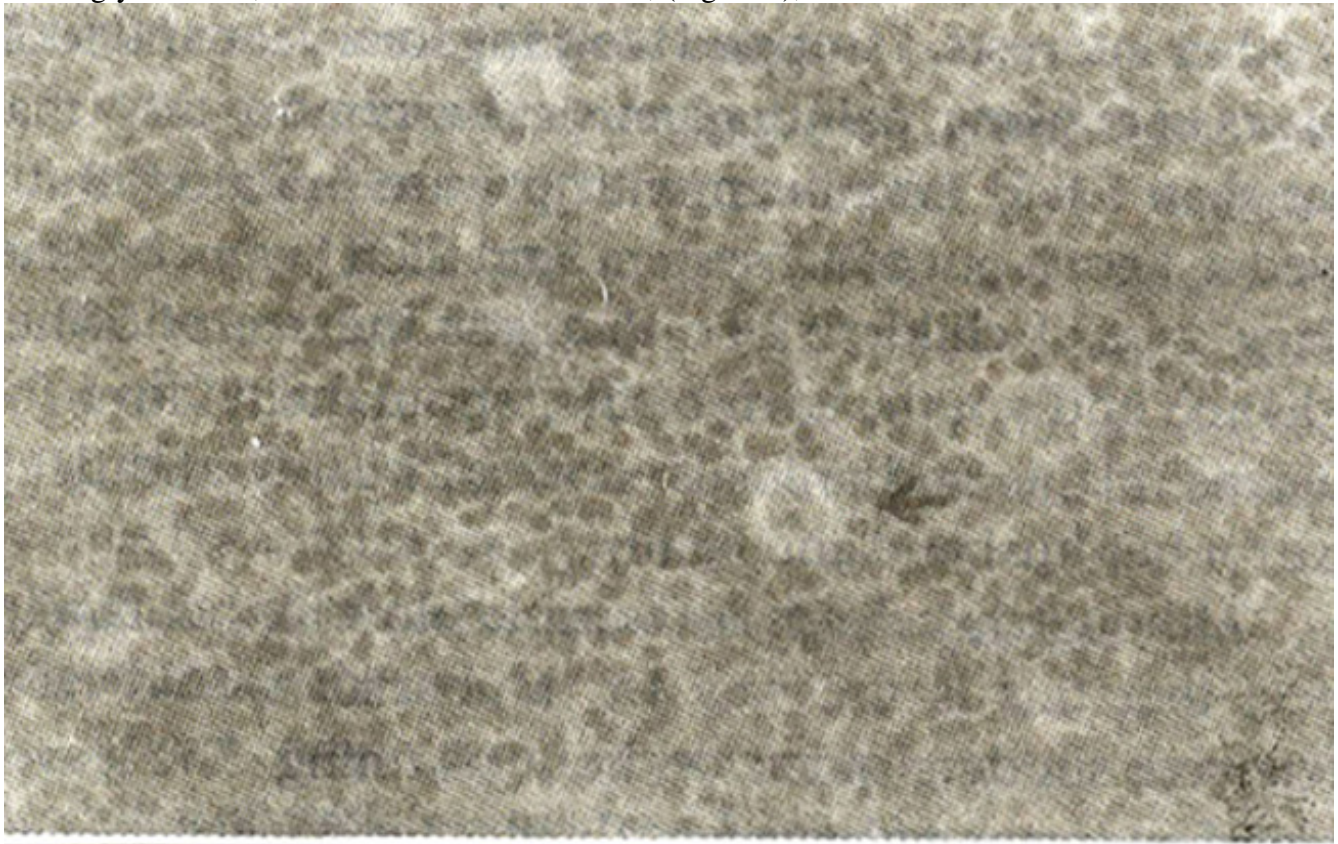


Figure 1. The mononuclear Hodgkin cell (Arrow) H & E x 400.

but we ignored it. We were after bigger game. The hunt was now in full swing, everybody was getting excited. We all knew that somewhere around, among the collagen fibers and other cells our owl-eyed RS cells were hiding. Everybody was holding his breath, not uttering a word else our prey may go into hiding. Although all the evidence pointed towards the possibility of sighting of RS cells, but sometimes

it really becomes difficult to locate them. Suddenly it appeared dozing in the bright light of the halogen lamp of our microscope (Figure 2).

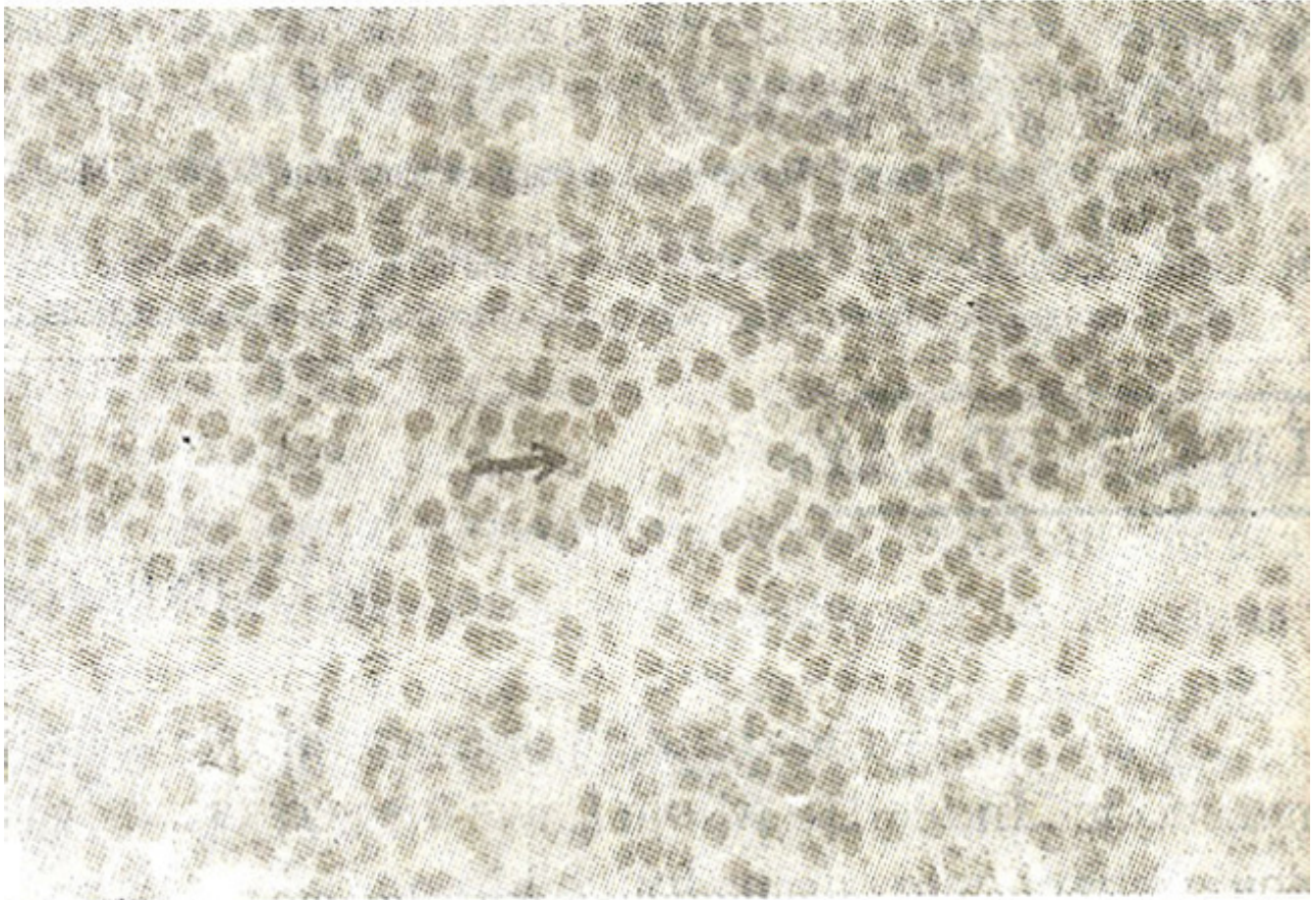


Figure 2. A Reed Sternberg Cell is hiding among the lymphocytes. (Arrow) H & E x 400.

Cautiously, we approached closer and turned our microscope to high power to identify our prey. It was a beautiful example of a classical Reed-Sternberg cell also called Dorothy Reed Cell or Sternberg Giant cell. Measuring from 15-45 um binucleated or bibbed with two halves appearing as mirror images of each other Prominent within the nuclei were large inclusion like Owl-eyed nucleoli, 3-4 um in size, which were eosinophilic and were surrounded by a clear halo. The nuclei were enclosed within an abundant amphophilic cytoplasm (Figure 3).

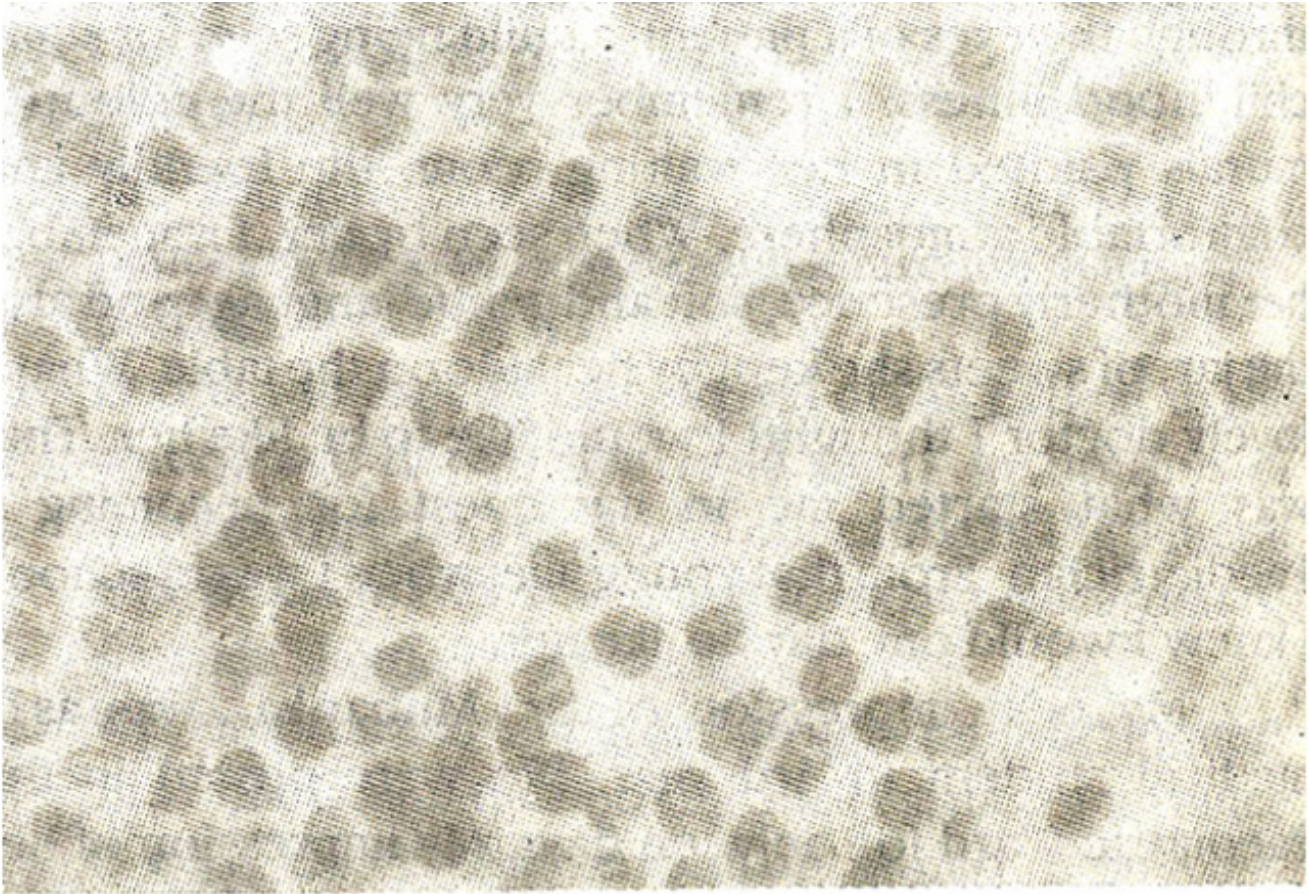


Figure 3. A close up view of RS cell. The perinucleolar halo is due to paraffin embedding, H & E Original magnification x 400.

Reed Sternberg cell was described independently by an American Pathologist (1874-1964) Dorothy Reed¹ and an Austrian Pathologist Carl Sternberg (1872-1935)² at the beginning of this century. The presence of RS cells is must for diagnosis of Hodgkins disease and they are most common in mixed cellularity and lymphocytic depletion variety of Hodgkin's disease³, yet cells of striking similarity have been observed in several other unrelated conditions like infectious mononucleosis,⁴ toxoplasmosis,⁵ post vaccinal lymphadenitis,⁶ mycosis fungoides, malignant lymphoma and fibrous histiocytoma⁷. The origin of Reed Sternberg cell is still debated. Virtually every cell of the lymphohematopoietic system has been blamed at one time or another⁸. In vitro studies by various workers, RS cells demonstrated phagocytic activity, production of lysozymes, Fc and C3b receptors, lack of lymphocytic markers, all features consistent with a mononuclear phagocytic origin^{9,10}. We aligned the pointer of microscope and jabbed the owl-eyed RS cell between the eyes, thus completing the histopathological hunt.

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