

Bilateral suprarenalectomy, on the other hand, lowers the natural resistance of rats to all toxemias, infections and poisons. In contrast to suprarenalectomy, splenectomy specifically affects the resistance to certain types of infections and toxemias, but the drop in natural resistance is not of a general character.²

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Compensatory Changes Following Splenectomy in *Bartonella* Free Rats.

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In rats that were carriers of *Bartonella muris*, certain changes were observed, following splenectomy and recovery from the anemia, in the hemocytoblastic tissue and in the reticular and endothelial elements. These changes appeared 3 to 5 months after splenectomy and were associated with immunity to further infection with *Bartonella muris*. The changes consisted primarily of hyperplasia of hemolymph tissue, hyperplasia of reticular and endothelial elements of lymph nodes, the formation of lymphoblastic foci periportally in the liver and peribronchially and perivascularly in the lung, regeneration of all elements of the thymus and marked hyperplasia of all elements of bone marrow (increased hematopoiesis).¹

In view of the presence of coincident latent infection in the rat, the compensatory changes described following splenectomy in rats of *Bartonella* carrier stock were difficult to evaluate. What was due to the absence of the spleen and what to previous *Bartonella muris* anemia remained uncertain. Studies were therefore made in rats in which the exacerbations of latent infections following splenectomy could be excluded. Six *Bartonella*-free rats, 3 months of age, of Wistar stock, were splenectomized and killed 6 months later. Six unsplenectomized rats of the same age and stock were killed at the same time. The presence of *Bartonella* infection was excluded by red blood cell counts and smears of peripheral blood at frequent intervals.

The anatomical changes observed were similar to those found in splenectomized *Bartonella*-carrier rats but less extensive. The liver

² Perla, David, and Marmorston, Jessie, *Arch. Path.*, 1933, **16**, 379.

¹ Marmorston-Gottesman, J., and Perla, David, *J. Exp. Med.*, 1931, **53**, 877.

showed little if any perivascular lymphocytic infiltration. The Kupffer cells were not enlarged, nor were they more prominent in phagocytic activity than in normal rats. The hemolymph nodes in the retroperitoneal area and the mediastinum were enlarged and showed endothelial cell proliferation with marked phagocytosis of red cells and blood pigment. Hemosiderin pigment was also present in the sinus endothelial cells and reticular elements of lymph nodes and proliferation of these cells occurred. Peribronchial accumulation of lymphocytes and pale reticular elements were present in 4 of the splenectomized rats but absent in 2. The thymus was rich in cellular elements and resembled the thymus of the immature rat, but it was not hypertrophied. The bone marrow was hyperplastic.

It may be that the difference in degree of stimulation of the hemocytoblastic tissue and of the cells of the macrophage system is greater in Bartonella-carrier rats than in Bartonella-free rats, due to the greater physiological need created by the presence of latent infection.

Summary. The late compensatory changes following splenectomy in Bartonella-free rats are essentially similar to, but less extensive than those observed in Bartonella-carried stock.

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The Habitat of *Trichophyton Interdigitale* Outside the Body.

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Adequate scientific proof of the existence of *Trichophyton interdigitale* (organism of "Athlete's Foot") outside the body seems lacking. Statements in the literature, however, would lead one to judge otherwise. The U. S. Public Health Service states¹: "Bath mats are justly blamed and it is probable that ringworm can be acquired from them just as warts on the soles of the feet can be it can also originate in hotels and from the use of infected towels or soap." The Public Health Engineering Section of the American Public Health Association² states: "Most if not all of

¹ *Health News*, E-28, U. S. Public Health Service. September 18, 1928.

² *Am. J. Public Health*, 1930, **20**, 7.