

is attached to show the degree of heat. This should never be uncomfortable to the patient, nor should any pain be experienced. The toes and fingers should be protected as a precaution against burns of the second degree, the sensitiveness of the skin being diminished by the intense heat. Treatment should be about one hour daily, this however to be regulated at will by the surgeon. After the treatment has been finished there should be a delay of from five to ten minutes before opening the cabinet, as sudden changes of temperature are injurious. The burner, if gas is used, should always be lighted before being placed under the chimney to avoid danger from explosion. The douche is made by adding an arm with a ball and socket joint to the chimney.

We have given a fairly full account of the technique employed in treatment by hyperemia; let us now consider some of the affections in which its value has been proved.

The first disease that Bier attempted to treat by means of it was tuberculosis of the joints, and what directed his attention to this as a field for experiment was the relationship between valvular heart affections and pulmonary conditions. Other workers in the realm of medicine had noticed the prevalence of tubercular foci in anemic lungs, the anemia having ensued as a result of certain heart affections, while in hyperemic lungs these foci were rarely found.

Farre and Travers, in 1815, published observations upon the frequency of phthisis with stenosis of the pulmonary artery. Rokitansky of Vienna, in 1838, said that a hyperemia of the lungs following upon valvular affections of the heart, practically rendered one immune to pulmonary tuberculosis. He also ascribed the like immunity, which has been observed in persons with deformed and deviated spines, to the resulting venous hyperemia of the lungs. It was these statements which drew Bier's attention to tuberculosis of the joints as a suitable medium to test the value of his method. He soon found, however, that active hyperemia was not efficacious in this respect, and so he confined himself solely to the obstructive method, and for this the elastic bandage is used.

The general rule in Bier's clinic is to apply the bandage twice daily for one hour; longer, if this does not produce satisfactory results. It has also been found where treatment has been successful up to a certain stage, and then followed by a stationary period, that a suspension of the process for eight to twelve days will usually have a good effect. Treatment unduly prolonged may cause a chronic edema of the limb, and an overgrowth of connective tissue in sinuses.