

GELATINE AS A SUPERIOR HÆMOSTATIC.—An interesting and valuable discovery is the blood-coagulating quality of gelatine. This was made by Dastre and Floresco, as announced in the *Archives de Physiologie* of April, 1896, after the report of their experiments the preceding February before the Society of Biology. More recently, in the September 18th number of the *Presse Medicale*, Dr. Paul Carnot takes up this subject, and in its consideration divides hæmostatics into those which act by causing vascular contraction (like ergot) and those which seal the vessel openings by coagulating the blood (as styptics.) He very properly objects to the use of the former whenever they can be avoided, for the reason that the plug of coagulated blood fitting the constricted vessel becomes too small after vascular dilatation, and thus leads to renewed bleeding.

That the gelatine solution causes actual coagulation of blood, and does not seal the vessels by merely gelatinizing, is proven by its being efficient in solutions too weak to permit gelatinizing. It is made up preferably with a sterilized normal salt solution, and to this an anti-septic may be added. Thus 7 parts of sodium chloride are added to 1000 parts of water. Gelatine is added to make up a 5 to 10 per cent. solution. This is then boiled twice for fifteen minutes two days apart, care being observed not to let the temperature reach 239° F., as that temperature sometimes destroys its value.

He used this preparation in persistent nose-bleed in a child that had nearly bled itself out, and in which the usual styptics, such as the perchloride of iron, had proven unavailing. An injection of a 5-per cent. gelatine solution stopped the bleeding at once. On the next day the other nostril bled, and it was stopped with equal promptness by the same means. This was effective despite the fact that the child had successive purpuric hæmorrhages under the skin, and mucous and serous membranes, and finally died with only 365,000 red corpuscles to the cubic millimeter of blood.

The solution should be used at the bodily temperature, because if used hot it causes vascular contraction, thereby temporarily arresting the flow and preventing coagulation, or causing the formation of small plugs in the contracted vessels that might lead to subsequent hæmorrhage when the vessels again expand, as in the case of those hæmostatics acting by vascular contraction. It need not be given in hæmatemesis, because its blood-coagulating quality is destroyed by the gastric juice.