

existing in plant physiology ; the retardation of growth on account of the presence of too much magnesium in the soil is promptly corrected by the addition of a calcium salt ; the process is termed "liming." In animals, therefore, as well as in plants calcium is antagonistic to magnesium.

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Remote result of the transplantation of a segment of popliteal artery from a man to a bitch.

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I have shown that a segment of carotid artery of a dog transplanted onto the aorta of a cat can act as artery for one year at least. In order to ascertain whether the same result is obtainable when the animals are zoologically more distinct than cat and dog, segments of human arteries have been transplanted in dogs. One of these animals was shown to the Society.

Seven months and twelve days ago, the abdominal aorta of the bitch shown to the society was severed, and a short segment of human popliteal artery was sutured to its cut ends. This popliteal artery belonged to a young man whose thigh was amputated by Dr. Ellsworth Eliot for an osteosarcoma. The vessel had been preserved in Locke's solution and kept in cold storage during the twenty four days which elapsed between the amputation and the transplantation.

After the transplantation, the bitch remained in excellent health and the pulse of the femoral arteries was normal. Five months and twelve days after the operation, an exploratory laparotomy was performed. The circulation of the aorta was found normal and the popliteal artery in about the same condition as at the time of the operation. Seven months and twelve days after the operation, the pulse of the femoral arteries is still normal.

This experiment shows that an artery, transplanted under certain conditions from man to dog, can act as artery for seven months at least.