S41. Two Cases of Traumatic Exophthalmos with Massive Nasal Bleeding

Shunshiro KONDO, Susumu KONDO, Kazuo AOYAMA, Kei SUZUKI
and Michio OHTA

Dept. of Neurosurgery, Tokyo Rosai Hospital

In both cases, in spite of the carotid ligations, lethal epistaxis from the fistula resulted by the dilation of intercavernous sinuses which destroyed the palate.

(In one case, cervical and intracranial carotid ligation, in the other, bilateral cervical carotid ligation.)

The neuro-surgical treatment did not prevent the fatal bleeding from the carotid- cavernous fistula.

S42. Sustained Cerebral Extremely Profound Hypothermia by Means of Exchange Perfusion of the Blood Substitute

T. KUDO, S. FUKUDA, N. YOSHII, H. HIRAI, I. OCHI, S. TOYA, S.
SHIMIZU, M. TANAKA, M. HATTORI, T. INOUE, Y. ODA, K.
KAWADA, K. UDAGAWA, M. MATSUDA, M. MATSUMURO,
K. YAMAMOTO, M. HARADA & I. NAGAI

Dept. of Surgery, School of Medicine, Keio University

Rapid total body cooling was performed by means of exchange perfusion of 0°C harmless artificial solution (PVP Ringer's, PVP amino-acid or Dextran solution) using extracorporeal heart machine. When 6-7°C was attained cerebral operation was started and absolutely bloodless surgical field was obtained and so unusual. As soon as temperature fall to about 5°C, all main vessels supplying blood to the head were clamped and rewarming perfusion using the heart machine with blood was started. While the body temperature (below the neck) was gradually risen to 30°C, fibrillation of the heart was appeared. Defibrillation was done normal and heart beat was reappeared. The heart machine was not further-more used. After arbitrary interruption of cerebral blood flow, effect of Heparin was counteracted. Cerebral systemic circulation was restarted and blood stilling in the surgical field was done completely. Operative wound was closed and surface warming was applied until body temperature rose to normal.

This new method was applied clinically on 53 year old male who was

diagnosed as a huge arterio-venous fistula in right cerebral hemisphere. Two hours cerebral circulatory arrest and extirpation of A-V fistula were done successfully. Patient was recovered uneventfully, however he died 16 hours after operation because of extradural hematoma.