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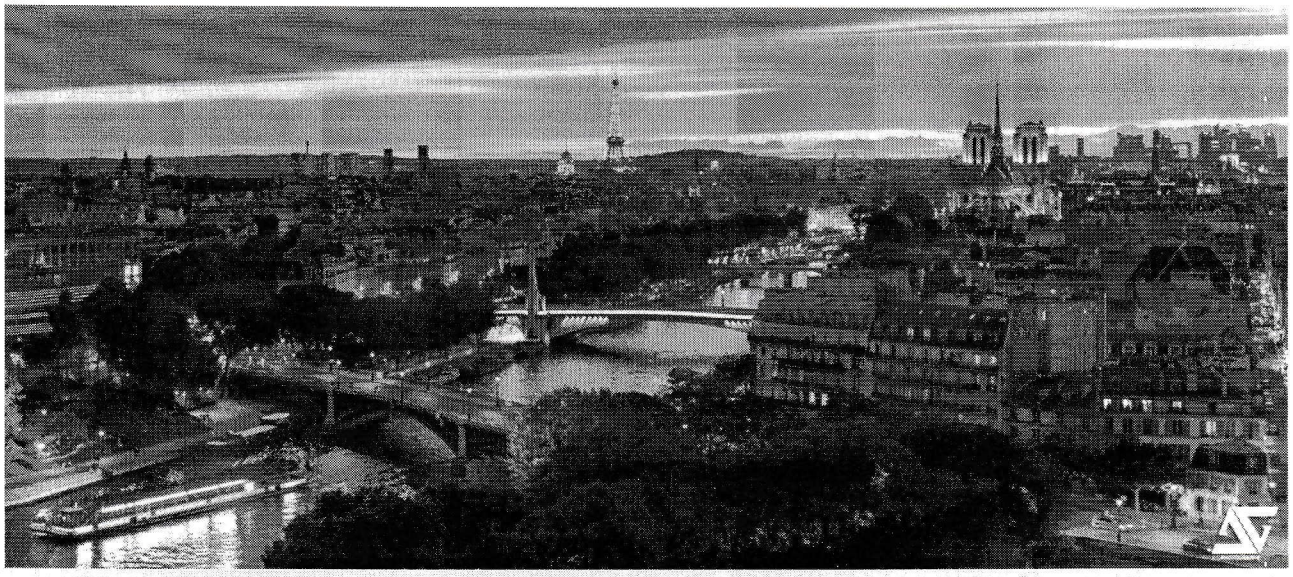

ABSTRACT BOOK

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THE USE OF AUTOPERICARDIUM IN SURGICAL TREATMENT OF TRACHEOMALACIA IN CHILDREN

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Aim of the Study was to optimize surgical treatment of tracheomalacia (TM) with variable use of autopericardium in children.

Methods. Seventy three patients aged from 2 weeks to 16 years (mean 9.6 months) operated on for idiopathic TM (n=17, 23.3%), TM associated with esophageal atresia (n=37, 50.7%) or innominate artery compression (n=19, 26.0%) were selected for the study. TM surgery included aortopexy, tracheoplasty or combination of both procedures. Autopericardium was used for TM surgery in 47 (64.4%) patients (group I) as pericardial flaps for aortopexy (n=31) or free native or modified with glutaraldehyde pericardial patch for tracheoplasty (n=16). In 11 of these cases, aortopexy and tracheoplasty were performed simultaneously.

In 26 (35.6%) cases (group II) different methods of aortopexy or tracheoplasty were used. Aorta was sutured to the sternum and trachea was reinforced (n=17) with siliconized rubber disks or patches of fascial-pleural tissue or preserved pericardium. Combination of both aortopexy and tracheoplasty in this group was performed in 4 cases.

Main results. Total of 69 (94.5%) patients survived, 63 (91.3%) remained asymptomatic at the late follow-up. Total mortality was 4 (5.5%), including 2 deaths in the I group (4.3%) and 2 deaths in the II group (7.7%), p=0.89. Complication rates in I and II groups were 8.5% (n=4) vs 23.1% (n=6), respectively, p=0.52. There were no pericardium-related complications.

Conclusions. Autopericardial flap aortopexy is expedient for tracheomalacia due to innominate artery compression. In idiopathic and "esophageal" tracheomalacia with an unstable trachea tracheoplasty with modified autopericardium and simultaneous aortopexy are indicated.