

Editöre Mektup

An unusual complication related to axillary artery cannulation for acute type A aortic dissection repair

Akut tip A aortik diseksiyon tamirinde aksiller arter kanülasyonu ile ilişkili beklenmedik bir komplikasyon

Nevzat Erdil, Bektaş Battaloğlu

Department of Cardiovascular Surgery, Medicine Faculty of İnönü University, Malatya

Axillary artery cannulation is a safe, feasible and reliable method for acute type A dissection repair. Axillary artery cannulation has several advantages, including antegrade perfusion of the aorta and selective unilateral perfusion of brain. With increased preference of this technique, problems and complication are more commonly encountered. We report right shoulder dislocation as an unusual complication of axillary cannulation in this letter.

Cardiopulmonary bypass (CPB) via the axillary artery has become an alternative perfusion site, especially in acute aortic dissections.^[1] The complications of axillary artery cannulation include embolization, brachial plexus injury, wound hematomas, and infection.^[1-3] We report the case of a right shoulder dislocation as an unusual complication of axillary cannulation.

CASE REPORT

A 44-year-old man who was referred to our institution because of acute type A dissection was transferred to the operating room. Perfusion via the axillary artery was performed as had been previously described.^[1] The axillary artery was exposed via a right subpectoral approach. For right axillary artery access, the patient was placed in the supine position with the upper limb in abduction at 90 degrees and slight external rotation.

The Bentall procedure and hemiarch replacement with valved conduit were performed under selective antegrade cerebral perfusion by right axillary artery cannulation.

The postoperative course was satisfactory, and the patient did not need inotropic agents. At 12 hours postoperatively, the patient had paresthesia and muscular weakness involving the right arm. We expected this symptom which was the result of a brachial plexus injury. The patient was discharged on postoperative day eight. The patient's symptoms, right arm paresthesia, and muscular weakness continued until the routine control on the postoperative second month. There were no pathological findings when the nerve and vessels were evaluated. The right shoulder dislocation was found on orthopedic consultation, and his therapy was arranged.

This complication was not directly related to the cannulation of the right axillary artery, but only occurs if the surgeon abducts the arm in surgery. Therefore, the surgeon needs to pay special attention to avoid this complication.

In conclusion, axillary artery cannulation via a right subpectoral axillary approach is a safe, feasible, and reliable method for acute type A dissection repair. Postoperative complications rarely occur. Shoulder dislocation must be kept in mind if the

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Correspondence: Nevzat Erdil, M.D. İnönü Üniversitesi Tıp Fakültesi Kalp ve Damar Cerrahisi Anabilim Dalı, 44280 Malatya, Turkey.
Tel: +90 422 - 341 06 60 e-mail: nerdil@inonu.edu.tr

patient complains about weakness and paresthesia of the abducted arm postoperatively.

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