Protruding aneurysm of arteriovenous fistula

Naoto Fukunaga · Takashi Hashimoto · Yasuhisa Ozu · Shigeru Komori · Yu Shomura · Hiroshi Fujiwara · Michihiro Nasu · Yukikatsu Okada

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A 72-year-old woman with no symptoms was referred to our hospital because of a protruding mass seen on her left forearm. A diagnosis of chronic renal failure had been made 8 years previously and 1 year later, hemodialysis had been initiated through arteriovenous fistula created

Fig. 1 A protruding aneurysm of arteriovenous fistula seen on 72-year-old woman's left forearm. A thinned wall, namely a bleb is recognized on the top of this aneurysm

Fig. 2 Intraoperative view. The short arrow shows an aneurysm of arteriovenous fistula before resection and closure. The long arrow shows a clamped afferent artery and the circle does a ligated proximal efferent vein

N. Fukunaga · T. Hashimoto · Y. Ozu · S. Komori · Y. Shomura · H. Fujiwara · M. Nasu · Y. Okada
Department of Cardiovascular surgery,
Kobe City Medical Center General Hospital,
4–6, Minatojimanakamachi, Chuo-ku,
Kobe-shi, Hyogo, Japan

N. Fukunaga (✉)
E-mail: naotowakimachi@hotmail.co.jp

on her left forearm. Laboratory examination on admission showed a blood urea nitrogen of 56 mg/dl, a creatinine of 9.56 mg/dl. Physical examination revealed that the mass was protruding from her left forearm and pulsatile with systolic bruit (Fig. 1). A thinned wall, namely a bleb is recognized on the top of this aneurysm. We made a diagnosis of aneurysm of arteriovenous fistula. The aneurysm with a bleb grew gradually. Taking into consideration the rupture and subsequent critical bleeding, we performed the surgical exploration. The short arrow shows an aneurysm of arteriovenous fistula before resection and closure. The long arrow shows a clamped afferent artery and the circle does a ligated proximal efferent vein. Partial resection and subsequent closure with continuous suture were made for

it (Fig. 2). At same time, a new arteriovenous fistula was created proximal to ligated vessels. The postoperative course was uneventful and she was discharged 7 days after surgery.

As the patients with arteriovenous fistula are increasing, we may encounter its complications more frequently. One of the complications with long-term usage is aneurysmal

formation. The rate of incidence is about from 5 to 6 % and it has the potential of rupture and subsequent critical bleeding. If an aneurysm has the risks of rupture with blebs, surgical intervention should be performed. Although a characteristic appearance may confuse a diagnosis, physicians or surgeons, who read our clinical report and watch one characteristic photograph can diagnose this aneurysm precisely.