

Unusual Cause of Claudication: Coronary Stent Migration: Case Report

Nadir Bir Kladikasyo Nedeni: Koroner Stent Migrasyonu

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ABSTRACT Extracoronary stent embolization is an infrequent but hazardous situation. Migrated stent may cause obstruction and acute ischemia in a peripheral artery which can be ameliorated by percutaneous approach in early stage. This case demonstrates that interventional retrieval techniques may be unsuccessful and cause further complications due to neointimal hyperplasia covering the migrated stent and surgical approach should be considered as preferred treatment.

Key Words: Intermittent claudication; ischemia; stents

ÖZET Ekstrakoroner stent embolizasyonu nadir ama tehlikeli bir durumdur. Migrate olmuş stent erken dönemde perkutan tekniklerle düzeltilebilecek periferik arterde tıkanıklık ve akut iskemiye neden olabilir. Bu vaka göstermektedir ki; cerrahi yaklaşımın öncelikli olarak planlanması, girişimsel teknikler başarısız olabildiği için ve migrate stentin üzerini kaplayan neointimal hiperplazinin neden olduğu komplikasyonların önlenmesi açısından önemlidir.

Anahtar Kelimeler: İntermitan kladikasyo; iskemi; stentler

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Stent embolization is one of the rare complications of percutaneous coronary intervention with an incidence ranging from 0.9 to 8.4%.¹ Migration occurs intracoronary in approximately half of the cases. Femoral artery is the most common extracoronary embolization site. Peroperative unsuccessful retraction of the stent into guiding catheter seems like the main cause of early stent embolization. A weak positioning of the stent due to tortuous calcified coronary arteries may facilitate migration of the device in late presentations. We herein, report an uncommon cause of leg pain; late embolization of coronary stent to the right superficial femoral artery.

A 38-year-old man admitted to our clinic with a sudden-onset right leg pain. Patient's history revealed successful right coronary artery stenting two months ago. Physical examination showed weak peripheral pulses at popliteal artery and its branches, of the right leg. Doppler ultrasonography documented monophasic flow at popliteal artery and branches and a hyperechogenic object causing stenosis just above the canalis adductorius. Angiography was performed and coronary stent embolization, from circumflex artery to the right superficial femoral artery (SFA), was diagnosed (Figure 1). Surgical extraction was planned. Superficial femoral artery was explored

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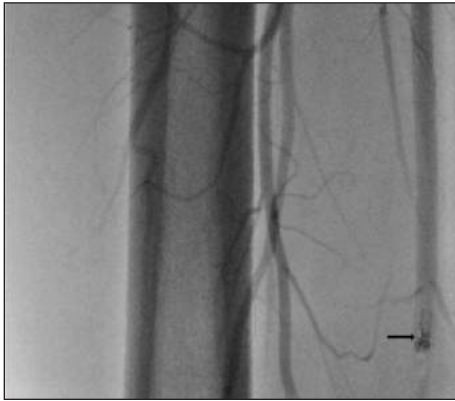


FIGURE 1: Angiography shows stent in superficial femoral artery (black arrow).

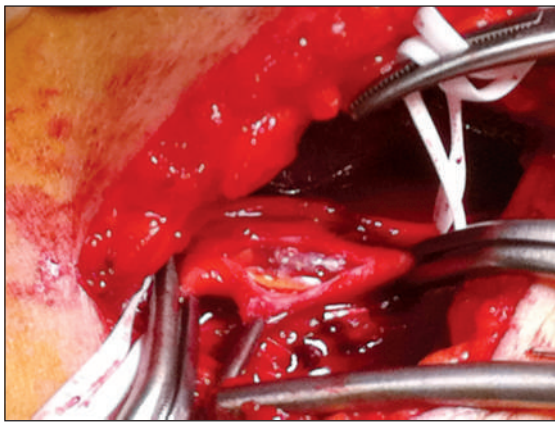


FIGURE 2: Stenotic segment of the vessel due to migrated stent was exposed.

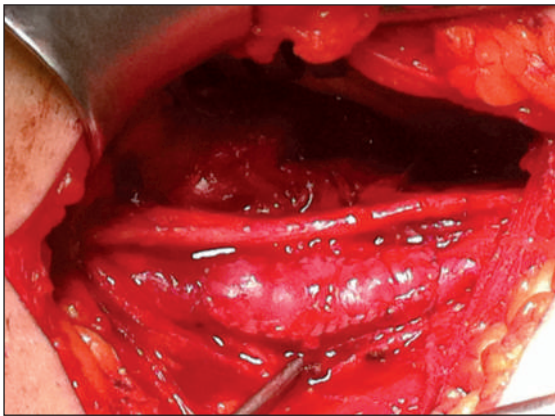


FIGURE 3: Closed arteriotomy with saphene vein patchplasty.

with local anesthesia. Stent was palpated in SFA. Artery was longitudinally incised. Stenotic segment of the vessel due to thrombosis and intimal hyperplasia was exposed (Figure 2). Following stent extraction, arteriotomy was closed with saphene vein patchplasty (Figure 3). Postoperative course was uneventful. Control examinations revealed patent peripheral arteries after 6 months.

Extracoronary stent embolization is an infrequent but hazardous situation. Femoral artery is the most frequently affected vessel. Approximately 50% of cases occur secondary to intraoperative technique problems.² Even though stent migration in the ascending aorta may cause acute embolic events in cerebrovascular circulation or recurrence of cardiac complaints due to untreated coronary stenosis, embolization to peripheral arteries usually does not precipitate delicate clinical symptoms.

Migrated stent may cause obstruction and acute ischemia in the peripheral artery which can be ameliorated by percutaneous approach in the early stage. Successful percutaneous retrieval which had been described first by Thomas et. al in 1964, which has been performed in such cases to date.³ Although percutaneous re-intervention is the preferred approach in especially in early cases, surgical retrieval is a better option in migration which is associated with thrombosis, endothelization and intimal hyperplasia.

In conclusion, this case demonstrates that interventional retrieval techniques may be unsuccessful and cause further complications due to neointimal hyperplasia covering the migrated stent, and a surgical approach should be considered as preferred treatment.

Conflict of Interest

Authors declared no conflict of interest or financial support.

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