Case Report/*Olgu Sunumu*

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An Unusual Complication of a 14 Year-old Port-Catheter

14 Yıllık Bir Port Kateterin Sık Karşılaşılmayan Komplikasyonu

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ABSTRACT

Percutaneous subclavian catheters or port-catheters are commonly used for oncology patients who require long-term or continuous intravenous therapy. There are several reported complications related to port-catheters like arterial puncture, pneumothorax and hematoma. We aimed to report an unusual port-catheter case. Our patient was a 45-year-old male who had a port-catheter inserted after the diagnosis of rectum cancer in 2009 and has never showed up for a catheter removal after his chemotheraphy regimen had been completed. The silicone port of the catheter was found to be disintegrated during the catheter removal procedure. Removal was performed but distal 5 cm of the catheter was missing. At the end of the procedure, control X-ray was obtained , but the last part of the catheter could not be visualized. There are reported cases of pinch-off syndrome in the literature however we couldn't find any such case as we report. Following port-catheter implantation and throughout the course of treatment, patients should be consistently monitored, and an appropriate time should be scheduled for removal. Physicians should be aware of complications and multidisciplinary approaches should be made to avoid serious events and further harm.

Keywords: Port-catheter complication, port-catheter removal, port-catheter detachment, pinch-off syndrome

ÖZ

Perkütan subklavyen kateterler veya port-kateterler sıklıkla onkoloji hastaları gibi uzun dönem ve devamlı intravenöz tedavi ihtiyacı olan hastalarda kullanılır. Port-kateterlerle ilişkili arteryel ponksiyon, pnömotoraks ve hematom benzeri komplikasyonlar bildirilmiştir. Bizler nadir görünen bir port-kateter olgusu sunmak istedik. Hastamız 2009 senesinde rektum kanseri tanısı aldıktan sonra port-kateter takılan 45 yaşında erkek hastaydı ve kemoterapi süreci bittikten sonra kontrol için tekrar hastaneye başvurmamıştı. Kateterin çıkarılması işlemi sırasında kateterin silikon portunun parçalandığı tespit edildi. İşlem tamamlandı ancak kateterin son 5 cm'lik kısmı kayıptı. İşlem sonunda kontrol amaçlı X-ray çekildi ancak kateterin son kısmı görüntülenemedi. Literatürde bildirilmiş pinch-off sendromu örnekleri mevcuttur ancak bildiğimiz kadarıyla bizimkine benzer bir olgu bulunmamaktadır. Hastalar port-kateter takılması sonrasında ve tedavi sürecinin sonunda yakın takip edilmeli ve uygun zamanda çıkarma işlemi planlanmalıdır. Hekimler komplikasyonlar konusunda bilinçli olmalı ve ciddi yan etkilerden sakınmak adına multidisipliner yaklaşımlar uygulanmalıdır.

Anahtar sözcükler: Port-kateter komplikasyonları, port-kateter çıkartılması, port-kateter kopması, pinch-off sendromu

INTRODUCTION

Percutaneous subclavian catheters or port-catheters are commonly used for oncology patients who require long-term or continuum intravenous therapy. Long treatment periods and an intravenous line requirement makes port catheters ideal for oncology patients. Average duration of stay for port-catheters is around 3 years (1). There are several reported complications related to port-catheters. Some of the early complications include arterial puncture, pneumothorax and hematoma. Among late complications are skin decubitus, wound infections, venous thrombosis, pinch-off syndrome and catheter dislocation (2,3).

CASE REPORT

We report a case of a rare complication related to port-catheters. A 45-year-old male patient with a medical history of nephrolithiasis, low-anterior resection in 2009 and colectomy for ileocecal tumor in 2010 presented to our clinic with right flank pain. He had a port-catheter inserted after the diagnosis of rectum cancer in 2009. The port catheter has not been used since 2010 however the patient has never showed up for a catheter removal after his chemotheraphy regimen had been completed.

Informed consent was obtained from the patient for publication. The patient's data was collected retrospectively.

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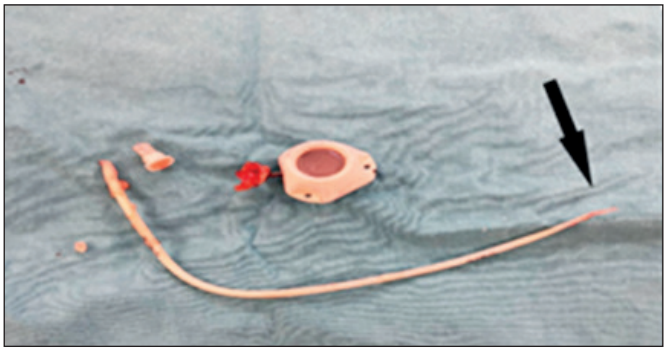

Figure 1: Catheter after removal, disintegreted from the silicon port, distal part was missing (arrow).

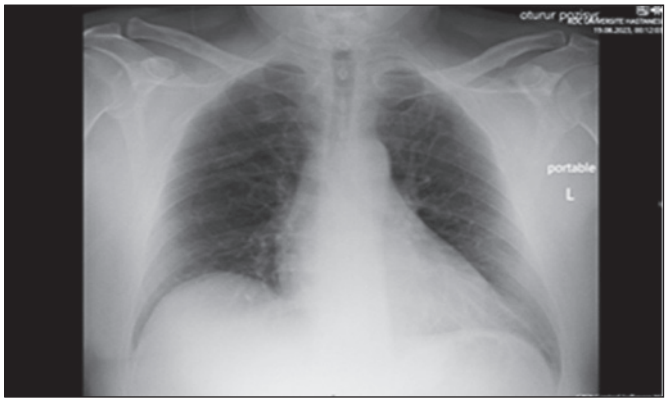

Figure 2: Chest-X-ray after procedure showing no catheter fragment.

After he was diagnosed with nephrolithiasis and scheduled to retrograde intrarenal surgery a port-catheter removal was also decided on preoperative examination. Retrograde intrarenal surgery was performed without any complication. The patient was given appropriate position for a catheter removal. Silicon port was located with palpation and its location was confirmed with a portable X-ray. Skin incision was made. Silicon port was accessed, during manipulation of the port by hand catheter disintegrated easily without any intervention. Removal was performed but distal 5 cm of the catheter was found to be missing (Figure 1).

Consultation with cardiovascular surgery and radiology were made. Another chest X-ray was obtained after the procedure, but the remaining part of the catheter was absent in both X-rays (Figure 2). The patient had no complaints. He was discharged after the procedure without any complications.

DISCUSSION

The most common complications associated with port-catheters are thrombosis and infections. Although less frequent, catheter migration or the breaking of a catheter fragment occurs in up to 1% of patients and can lead to severe and potentially life-threatening complications such as pulmonary thromboembolism, bacterial endocarditis, sepsis, myocardial damage and cardiac arrhythmias (5). A rare but life-threatening complication of disintegration of subclavian port-catheters called pinch-off syndrome, is reported in the literature (4). In pinch-off syndrome catheters are disrupted where subclavian vein passes between the first rib and the clavicula and could migrate to heart and pulmonary vasculature. In our case, however, the part of the catheter which passes between the first rib and the clavicula was intact, but it was disintegrated where it connects with the silicon port and the distal 5 cm was totally absent. Thinking that the catheter stayed for 14 years, which is more than the usual duration of port-catheters in the literature, the decay or dissolution of the catheter could be caused by the physical forces.

Patients should be followed upon port-catheter insertion and after termination of treatment, removal should be planned. Physicians should be aware of complications and multidisciplinary approaches should be made to avoid serious events and further harm (5).

AUTHOR CONTRIBUTIONS

Conception or design of the work: MM
Data collection: DY, YS
Data analysis and interpretation: MM, DY
Drafting the article: MM, YS
Critical revision of the article: YG
The author (MM, DY, YS, YG) reviewed the results and approved the final version of the manuscript.

REFERENCES

1. Intagliata E, Basile F, Vecchio R. Totally implantable catheter migration and its percutaneous retrieval: Case report and review of the literature. G Chir 2016;37(5):211–5.
2. Poorter RL, Lauw FN, Bemelman WA, Bakker PJ, Taat CW, Veenhof CH. Complications of an implantable venous access device (Port-a-Cath) during intermittent continuous infusion of chemotherapy. Eur J Cancer 1996;32A(13):2262-6.
3. Manici M, Darcin K, Isguzar A, Cosarcan SK, Kucukerdem B, Ercelen O. Intravenous port catheter implantation: Retrospective study in single center experience. JARSS 2022; 30(1):42-7.
4. Ilhan B, Sormaz İC, Türkay R. Pinch-off syndrome, a rare complication of totally implantable venous access device implantation: A case series and literature review. Korean J Thorac Cardiovasc Surg 2018;51(5): 333-7.
5. Leite TFO, Pazinato LV, Bortolini E, Pereira OI, Nomura CH, Filho JMDML. Endovascular removal of intravascular foreign bodies: A single-center experience and literature review. Ann Vasc Surg 2022;82:362-76.