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EDITORIAL

On behalf of the editorial board of The Interventionalist Journal (TIJ), I would like to extend my deepest appreciation to the founder team, who had built the foundation of this journal.

The aim of The Interventionalist Journal is to provide and served as a platform for all clinicians who are doing minimally invasive procedures to share their findings, expertise, innovations and experiences at the regional and international significance. We envisaged being providing a high-standard and evidence-based platform for publishing high impact publications.

I am humbly inviting each of you to actively participate and contribute to The Interventionalist Journalas an author, reviewer, and reader.The Interventionalist Journal has a strong starting point and I am confident that, we can eventually venture into new heights.

Sincerely,
Ezamin Abdul Rahim
MD, MMed Rad
Editor-in-Chief
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THE INTERVENTIONALIST JOURNAL

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SPONTANEOUS RUPTURE OF AN INTRATUMORAL PSEUDOANEURYSM IN A GIANT RENAL ANGIOMYOLIPOMA

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ABSTRACT:
We reported a rare case of a spontaneous rupture of an intratumoral pseudoaneurysm in a giant renal angiomyolipoma of a 52-year-old lady. The initial presentation was a sudden onset of right hypochondriac pain, nausea, and vomiting. CT scan revealed a large heterogenous exophytic enhancing mass with mixed solid and fat density within, arising from the right kidney likely representing a giant right renal angiomyolipoma. There is associated right perinephric hematoma and active bleeding within the mass. No features suggestive of tuberous sclerosis. A subsequent right renal angiogram revealed a pseudoaneurysm of an inferior segmental right renal artery and emergency embolization was done with successful obliteration of the aneurysmal sac and devascularization of the mass.

Keywords: Angiomyolipoma, Intratumoral hemorrhage, Pseudoaneurysm, Tuberous Sclerosis.

INTRODUCTION:

Angiomyolipoma (AML) is a soft tissue tumor involving the kidneys and other organs. Extrarenal angiomyolipomas are extremely rare and reported in the liver, nasal cavity, vagina, spermatic cord, skin, mediastinum, and GI tract. It is the most common benign mesenchymal neoplasm of the kidney and is composed of varying amounts of fat, smooth muscle, and abnormal thick-walled blood vessels that tend to hemorrhage [1]. AMLs are observed in 0.1–0.22% of the general population and are four times more common in females [2]. The inheritance pattern of renal AML is autosomal dominant. Two broad types have been described: sporadic isolated AML and AML associated with tuberous sclerosis. Approximately 80–90% of renal AML occurs sporadically [3]. Sporadic isolated AML mainly occurs in women 40-70 years old while AML associated with tuberous sclerosis usually occurs at any age and in either sex. Aneurysm formation is usually noted in AMLs associated with tuberous sclerosis and is rare in the sporadic variety [4]. Most patients are asymptomatic and the tumor is often incidentally detected during ultrasonography (US) or CT [5, 6]. As many as 40% are symptomatic and these tend to be larger due to aneurysmal formation and rupture, which may cause life-threatening hemorrhage [7]. Tumor diameter, aneurysm diameter, and presence of tuberous sclerosis complex have been used as a criterion for predictors of rupture.

CASE PRESENTATION:

KZ is a 52-year-old lady with underlying obesity, diabetes, triple vessel disease, and hypertension. She presented to the emergency department with sudden onset of right hypochondriac pain associated with nausea and vomiting. Blood investigation showed rapid drop of hemoglobin from 12.2 to 4.3 g/dl during her first day of admission. Immediate resuscitation was instituted as she was in shock. The CT scan of the abdomen and pelvis revealed a large exophytic heterogenous fat-containing mass occupying the interpolar and lower pole of the right kidney with extension medially across the midline measuring 18.0 x 17.0 x 17.5 cm. There is evidence of active bleed within the mass and right perinephric hematoma. Radiological diagnosis of a large right renal angiomyolipoma with active intratumoral hemorrhage was made. She was not suitable for nephrectomy as she was a high-risk patient with multiple comorbidities. She then underwent an emergency embolization of the aneurysm of the right renal angiomyolipoma using coils and gel foam respectively, with successful obliteration of the aneurysmal sac and devascularization of the mass.

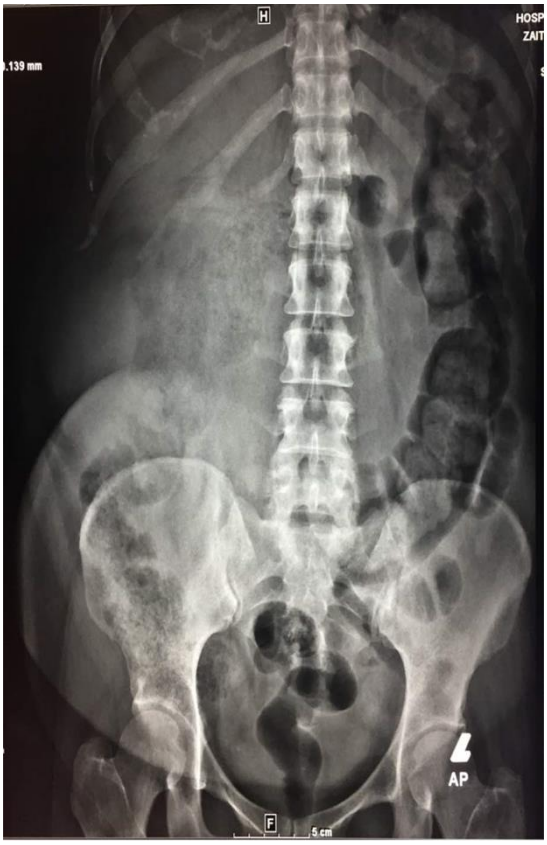

Figure 1: Abdominal x-ray showing soft tissue opacity at the right lower abdomen with loss of right psoas muscle silhouette.

DISCUSSION:

Angiomyolipomas are considered to be non-aggressive and benign. However, some AMLs may have alarming properties such as nuclear pleomorphism and mitotic activity, extension into the renal vein, vena cava, atrium, and spread to regional lymph nodes without malignant progression. While the vast majority of AML show benign biological behavior, a small proportion is malignant and may metastasize [4]. The features of malignancy include >70% atypical epithelioid cells, >2 mitotic figures per 10 high-power field (HPF), atypical mitotic figures, and necrosis [11].

The majority of tumors sized <4 cm are asymptomatic and the diagnosis of AML is often incidental. A giant AML is considered when the tumor reaches >10 cm in size. Giant renal AML is uncommonly reported in the literature with the largest renal AML (39 × 25 × 9 cm) reported in 2013 by Taneja et al [14, 15]. It was previously reported that renal AML may grow by 4 cm each year in its maximum dimension [16, 17].

Clinical presentations like a large palpable mass, lower back pain, hematuria, and shock are the

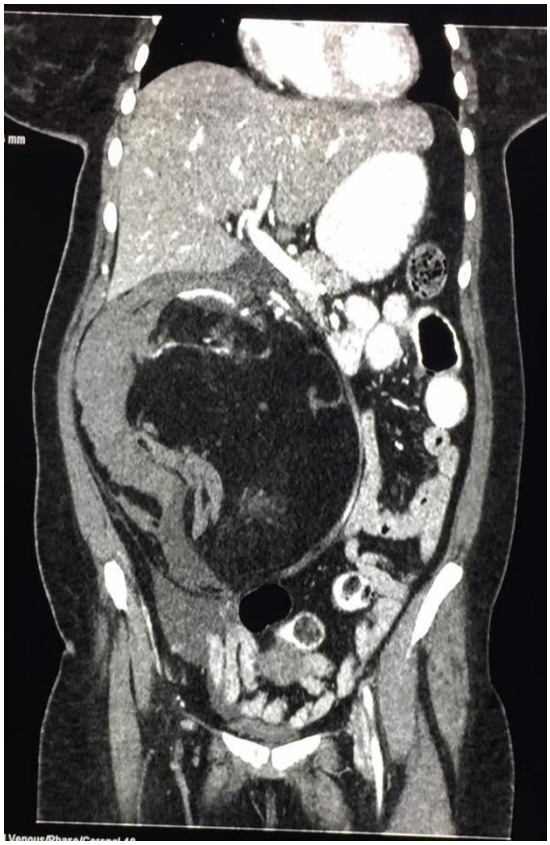

Figure 2: CT abdomen showing large heterogenous lesion containing fat measuring 18 x 17 x 17.5cm arising from the right kidney.

main reason for renal AML patients seeking medical attention. The main complication of AML is intra-capsular or retroperitoneal hemorrhage due to the tortuous, thick-walled, and angiomatous arrangement of the blood vessels in AML. The characteristic absence of elastic tissue in the tumor vessels predisposes the patient to small, saccular aneurysms formation and spontaneous hemorrhage [8,9]. Hemorrhage can be intraparenchymal, intraperitoneal, or retroperitoneal and can be life-threatening.

Tuberous sclerosis complex associated angiomyolipoma tends to be multiple, larger, with aneurysmal formation, and more likely to cause spontaneous hemorrhage than sporadic forms of angiomyolipoma [10]. In a study that examined AML tumor size, aneurysm size, and the chance of rupture, aneurysms ranged from 2–7 mm in diameter and predictors of aneurysm rupture were a tumor size of 4 cm or more and an aneurysm diameter of 5 mm or more [7].

The common method to screen AML is by ultrasound (US). The typical appearance of AML on US is a hyperechoic renal lesion with acoustic shadowing. However, owing to the mechanism of imaging, the US cannot clearly define AMLs with minimal fat components [12]. Moreover, isoechoic or hyperechoic evidence is often displayed in both fat-poor AML and epithelioid AML. Thus, the US is not very sensitive and accurate for differential diagnosis and AML subtype identification. CT imaging should be the first choice diagnostic tool for diagnosing AML. On CT, classical AML appears as predominantly fatty attenuation with various densities, whereas fat poor AML is iso- or hyperattenuating with homogeneous enhancing. Epithelioid AML displays a hyperattenuating image with heterogeneous enhancing or multilocular cystic appearance.

Due to the tendency of progressive tumor growth and aneurysmal rupture, Oesterling et al have proposed the following treatment protocol based on size and symptoms of AML. Patients may be followed conservatively with yearly Ultrasound or CT scans for those with isolated AML < 4 cm in

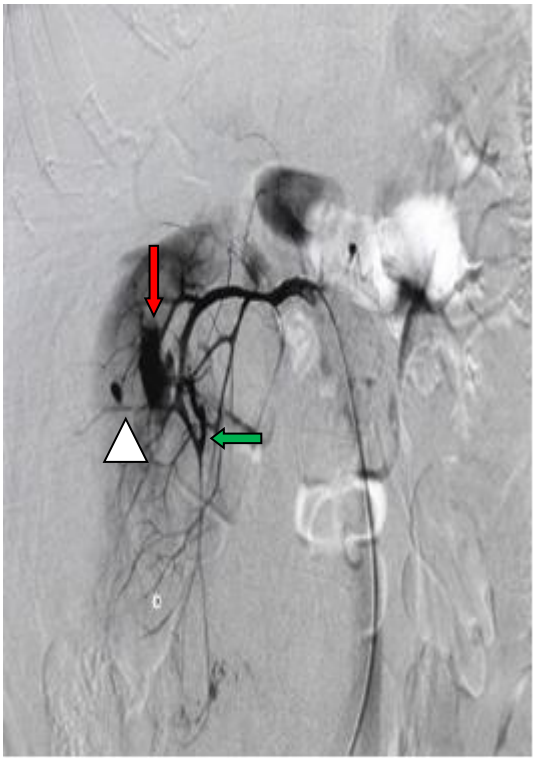

Figure 3: Selective renal artery angiogram showed evidence of contrast extravasation (red arrow) from abnormal inferior segmental artery (green arrow). Small tumor blush (black arrow) and pseudoaneurysm (arrowhead) seen from the proximal branches of inferior segmental artery supplying the inferior aspect of the mass.

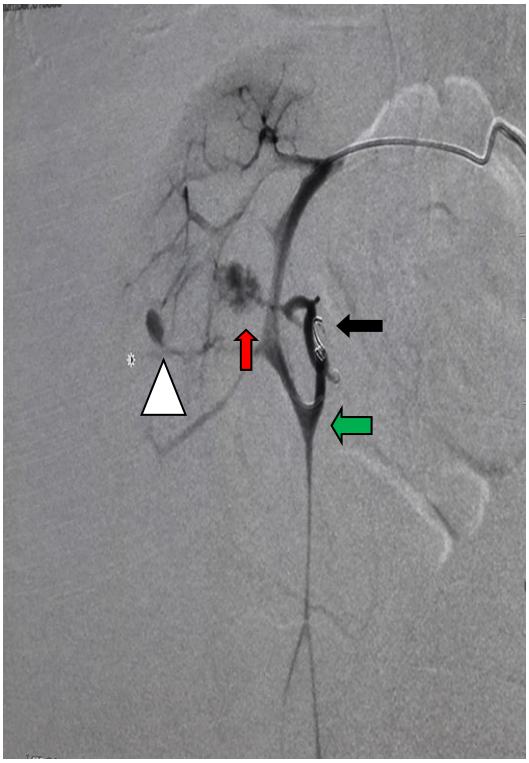

Figure 4: Angiogram following placement of first coil (black arrow) in the tortuous feeding artery of the AML. There is residual contrast extravasation (red arrow) with the persistent flow of the abnormal inferior segmental artery (green arrow) and pseudoaneurysm (arrowhead).

diameter and 6 monthly CT scans for those with lesions > 4 cm for assessment of growth. Patients with tuberous sclerosis complex and AML < 4 cm in diameter should be followed by a semiannual CT scan [13].

As a benign lesion that is usually asymptomatic, angiomyolipoma may often not require intervention [10]. Indications for intervention include suspicion of malignancy, spontaneous hemorrhage causing significant symptoms, pain, haematuria, and risk of rupture or other complications as the formation of an intrarenal aneurysm [7]. Most symptomatic angiomyolipoma can be managed by nephron-sparing approaches, including angiographic embolization or partial nephrectomy, nevertheless, some selected patients may require complete nephrectomy [10].

The occurrence of an aneurysm in sporadic AML, such in our case, is a rare phenomenon as the large majority tend to be associated with tuberous sclerosis. Our case was striking because of its large size and associated intratumoral pseudoaneurysm. A further interesting aspect of this case was the radiological appearance of the small intratumoral pseudoaneurysm that caused extensive hemorrhage. As the patient is a high-risk patient and not suitable for operation, selective transcatheter embolization was successfully done as an emergency life-saving procedure instead of urgent nephrectomy.

CONCLUSION:

Spontaneous hemorrhage from an aneurysm in renal AML is potentially a life-threatening event. A quick assessment to verify vascularity of the mass and the presence of an aneurysm is important for preventive treatment against catastrophic bleeding.

STATEMENT OF ETHICS:

Informed consent was obtained from the patient for the publication of this work.

CONFLICTS OF INTEREST:

The authors have no potential conflicts of interest to disclose.

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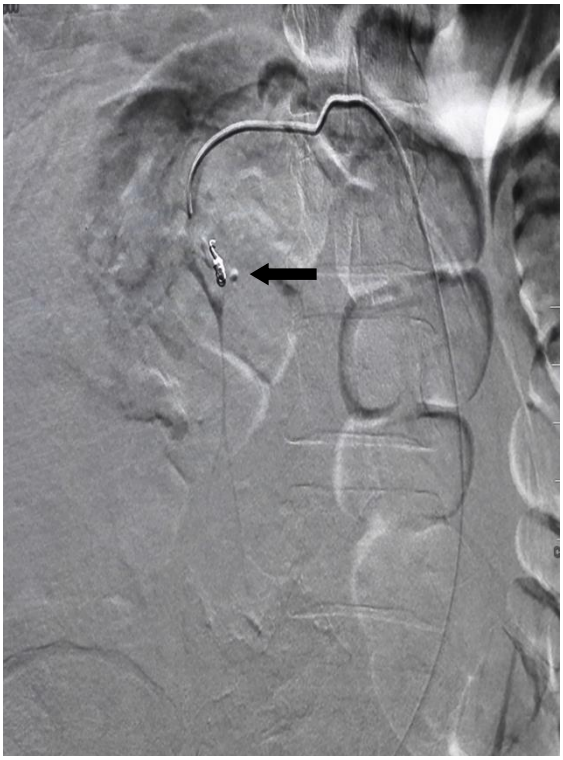

Figure 5: Second coil (black arrow) was inserted and check angiogram showed no active contrast extravasation or tumor blush.

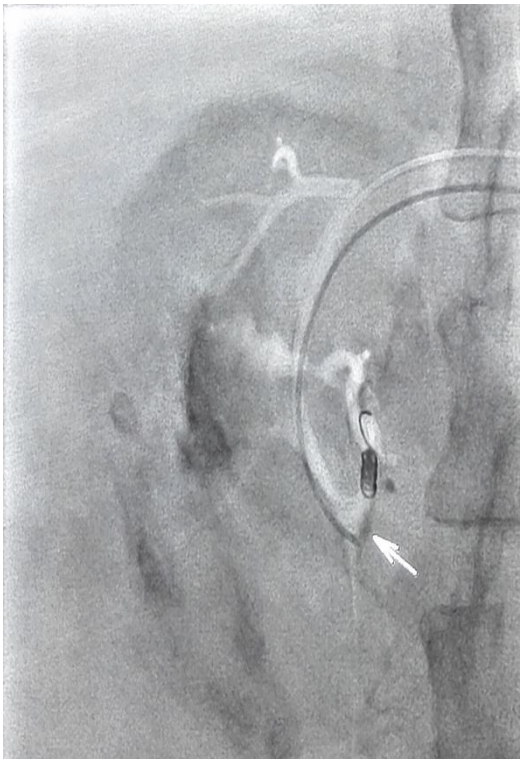

Figure 6: Coils deployed at the distal abnormal inferior segmental artery and gelfoam slurry (white arrow) infusion given proximally for added control of bleeding.

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HIGH RISK PERSISTENT AIR LEAKS IN GIANT AND DIFFUSE BULLAE LUNG DISEASE SALVAGED BY URGENT ENDOBRONCHIAL VALVE (EBV) INSERTION

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ABSTRACT:
Persistent air leak (PAL) is a common complication of pneumothorax despite intercostal drainage. Neither pneumothorax management guidelines from the American College of Chest Physicians (2001) nor the British Thoracic Society (2010) recommended bronchoscopy, much less endobronchial valves as management for PAL. We describe a case of a 62-year-old gentleman, an active smoker of 40 pack-years, who had a history of left-sided pneumothorax in 2019 that was treated conservatively. In August 2021, he presented with shortness of breath and right-sided chest discomfort. His Chest X-ray revealed a right tension pneumothorax. A chest drain was inserted with much clinical improvement. However, he had a persistent air leak despite 30 days on a chest drain. Because of his refusal of surgical intervention, the patient underwent endobronchial valve insertion as a salvage procedure into his right upper lobe. His PAL was resolved within 24 hours, and he was discharged the next day.

Keywords: Bronchoscopy lung volume reduction, Endobronchial valve, Persistent air leak, Pneumothorax, Pulmonary Valve

INTRODUCTION:

Persistent air leak (PAL), a common complication of pneumothorax, can be caused by either an alveolar-pleural fistula or a bronchopleural fistula. It is associated with increased morbidity, prolonged hospital stays and high resource utilization. A PAL is arbitrarily defined as an air leak that lasts longer than 5–7 days [1]. The most common causes of PAL include thoracic surgery, secondary spontaneous pneumothorax and cavitary pulmonary infections (especially tuberculosis). In general, surgical management is considered when the air leak persists for more than 5 days [1]. However not all patients are suitable for surgery, and some may refuse surgical intervention. To date, the American College of Chest Physicians (2001) and British Thoracic Guidelines (2010) have not recommended an endobronchial valve (EBV) as a solution for PAL. However, its use has been approved by the FDA under the Humanitarian Device Exemption. We wish to report a case of a right-sided pneumothorax with a persistent air leak which resolved with a one-way endobronchial valve insertion.

CASE PRESENTATION:

Mr T is a 62-year-old gentleman with a 40-pack year smoking history, no co-morbid, not on any long-term medication and has no past surgical history. He had a history of left-sided pneumothorax in the year 2019 secondary to a left upper lobe bulla, in which he sought medical attention at a private hospital. He was

conservatively treated, without any drainage as he refused intervention. In August 2021, he presented with sudden onset of shortness of breath and right-sided chest discomfort. He denies any fever, prolonged cough, loss of weight or appetite. His blood tests showed Hb 15.4g/dL and WBC 6.2 x 109. His renal and liver function were normal. On examination, his oxygen saturation (SPO2) was 88% under room air, trachea central, with reduced air entry over the right hemithorax. The chest radiograph revealed a right-sided pneumothorax. A chest tube was inserted in the emergency department with successful symptom relief. He was admitted, and placed on supplementary nasal prong oxygen of 2L/min. He remained well in the ward, with SPO2 of 100%. However, after 5 days, his chest tube was still continuously bubbling during inspiration and expiration (Cerfolio grade 4).

An immediate high-resolution CT (HRCT) thorax showed a large right pneumothorax with a large bulla in the mid and posterior thoracic cavity measuring 10cm x 10cm x 13cm. The right upper lobe was completely collapsed with partial collapse of the middle and lower lobe. (Image as attached)

Surgical management - video-assisted thoracic surgery or thoracotomy with bullectomy and pleurodesis was offered to the patient. However, the patient was not keen, and his PAL persisted for more than 30 days, requiring him to remain inpatient. A multidisciplinary team discussion (radiologist, thoracic surgeon and pulmonologist) for further treatment modality was done, during which on review of CT images, the interlobar fissures were intact. Hence, EBV placement for PAL was discussed with the patient as a salvage procedure and he was agreeable. A total of 5 Zephyr EBV (Pulmonx) were deployed into the right upper lobe apical-posterior and anterior segments via rigid bronchoscopy under general anaesthesia. Post-procedure, his PAL resolved, chest tube bubbling ceased, and his oxygen saturation improved to 96% under room air. He was discharged well on day one post-procedure.

DISCUSSION:

The standard routine treatment for PAL is by surgical approach. However, for those unfit for surgical management, this poses a challenge. Known that surgical management may incur a lot of risks such as perioperative risk related to the presence of underlying chronic lung disease. Various endobronchial methods of management have been described e.g coils, balloons, fibrin or tissue glue, and autologous blood patches [2]. Watanabe spigot has been reported to be effective in managing air leaks via endobronchial occlusion. [3]

EBV was initially designed for severe emphysema treatment; its function was to obstruct the airway and allow a unidirectional airflow, causing parenchyma atelectasis and drainage of distal secretions. The lung atelectasis will inadvertently result in a cessation of air leak. The EBV has an edge; ease of deployment and repositioning to achieve functional success and subsequent removal should any EBV-related complication arises. EBV placement can be confirmed with plain chest radiographs on follow-up.

The success of Zephyr EBV usage was reported in a case series by Travaline et al, in which 37 of 40 (93%) patients had either complete or partial resolution of air leak [4]. The cohort of cases described was spontan¬eous, post-¬operative, traumatic and iatrogenic pneumothorax. The median time for the liberation of the chest tube was reported as 7.5 days. Another licensed EBV available is the Spiration IBV, in which Gillespie et al reported its use in 7 PAL cases (3 secondary spontaneous pneumothorax and 4 post-operative pneumothorax). The author described its achievement in air leak cessation in all patients, leading to the removal of chest tubes after a median of 16 days [5].

The role of EBV in the management of PAL has not yet been widely recognized. This minimally invasive procedure coupled with its ease of insertion can be considered a therapeutic option, especially in instances when surgical intervention is not feasible. As for our patient, with the presence of bilateral lung bullae and PAL, his risk of anaesthesia and major surgery is high. The insertion of EBV as a last effort salvage procedure has benefitted in cessation of PAL. Nevertheless, a prospective randomised controlled trial with a large sample should be carried out to shed further light on the long-term effectiveness and safety of EBV usage in PAL.

CONCLUSION:
Endobronchial valve insertion for the management of persistent air leaks in pneumothorax is currently not widely practiced. However, it's usage may provide an option of treatment should conventional interventions are contraindicated or failed. This case report highlights the successful usage of EBV in the context of a high risk patient, unsuitable for surgical management.

STATEMENT OF ETHICS:
Informed consent was obtained from the patient for the publication of this work.

CONFLICTS OF INTEREST:
We have no known conflict of interest to disclose.

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DATA AVAILABILITY STATEMENTS:
Further data can be obtained by contacting the author via email jenlye@hotmail.com.

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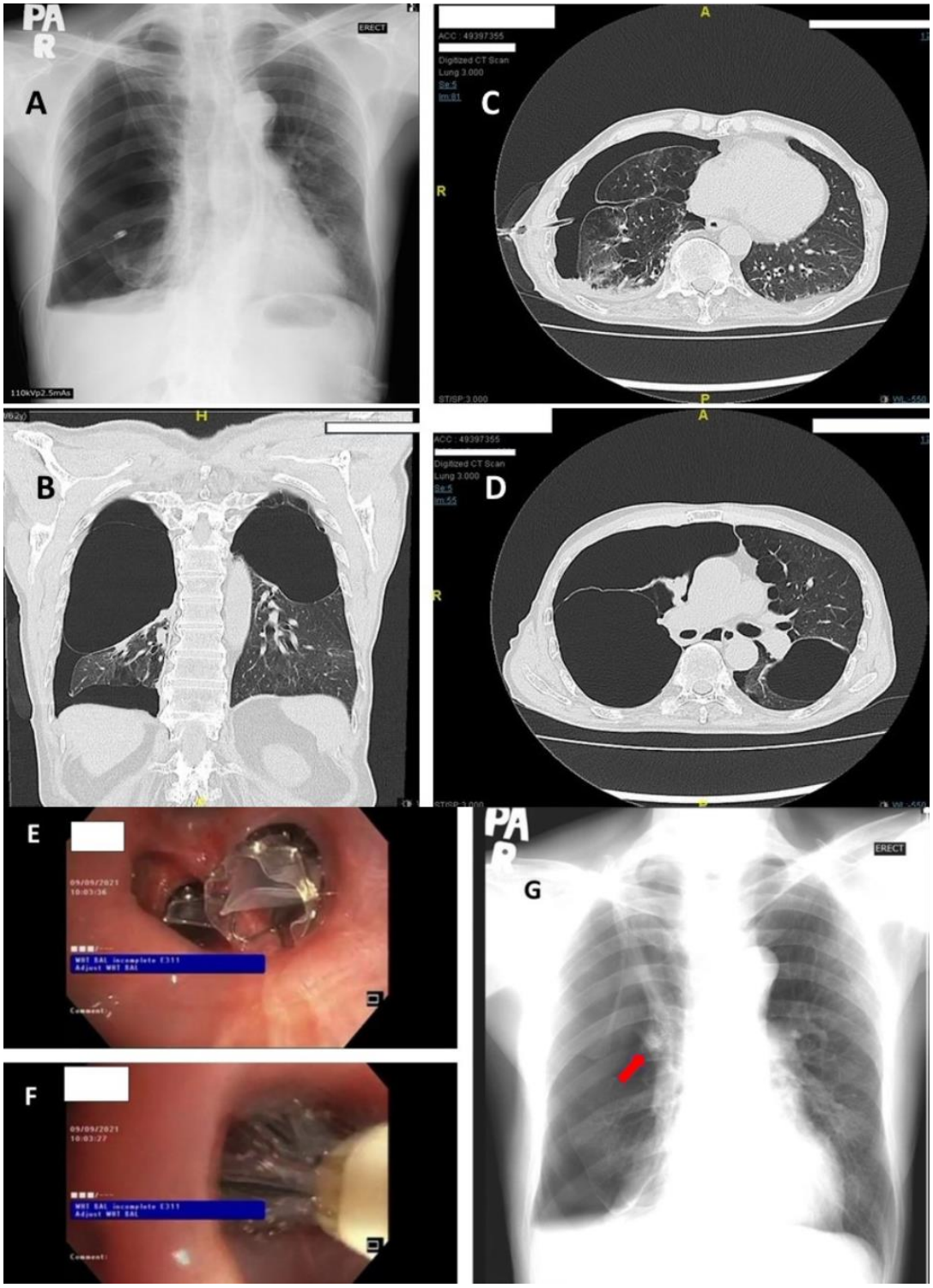

Figure 1: (A) Chest radiograph depicting a right pneumothorax with associated right upper, middle and lower lobe collapse. Right intercostal chest tube is in-situ. (B)-(D) High resolution computed tomography thorax (coronal and axial view) shows a large bullae at the right mid - posterior thoracic cavity measuring 10cm x 10cm x 13cm (AP x W x CC). Right chest tube drainage is in-situ. A large bullae with panlobular and paraseptal emphysematous changes are seen at the left upper lobe and at the lingula segment respectively. (E), (F) The Zephr (Pulmonx) EBV is implanted in the target bronchus (right upper lobe) using the Zephyr Endobronchial Delivery Catheter (EDC). Deployment of the valve through the EDC. The main body of retainer completely engaged within target bronchus (G) Chest radiograph post procedure. Red arrow shows group of five endobronchial valves with residual right hydropneumothorax.

NEGLECTED RETAINED CENTRAL VENOUS CATHETER GUIDEWIRE COMPLICATED WITH GUIDEWIRE RUPTURE DURING RETRIEVAL PROCESS AND ITS BAILOUT TECHNIQUE

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ABSTRACT:
Central venous catheter insertion is a commonly performed procedure. This catheter is used to administer drugs and fluid, especially in critically ill patients, and monitor central venous pressure. We present a case of a retained guidewire for 17 months which was found incidentally from the abdominal and chest radiograph. We retrieved the retained J-tip guidewire using four loops retrieval snare. The retrieval process was complicated with the rupture of the guidewire, causing the unwinding of its outer sphere, leaving the inner monofilament dangling in the heart chamber. In this case report, we would like to describe the initial retrieval technique, which was failed and its bailout procedure.

Keywords: Angiomyolipoma, Intratumoral hemorrhage, Pseudoaneurysm, Tuberous Sclerosis.

INTRODUCTION:

A retained guidewire is not an uncommon condition. Usually, it is detected immediately during insertion and urgently retrieved. In certain situations, the retained guidewire is remained unnoticed and detected incidentally during later imaging. The neglected guidewire needs to be removed immediately to avoid guidewire-related complications [1, 2]. Endovascular intervention is a method of choice for removing the guidewire as it is highly advantageous for both the patient and the surgeon [3]. Although endovascular guidewire retrieval is a simple procedure, the complication may occur, especially in inexperienced operators.

CASE PRESENTATION:

A 34-year-old lady with underlying Type 2 Diabetes Mellitus and dyslipidemia presented with abdominal pain and prolonged fever was admitted for recurrent multiple splenic abscesses. During admission, a J-tip guidewire was noticed on her chest and abdominal radiograph (Figure 1). She had a similar presentation to a district hospital 17 months ago, during which a femoral venous catheter was inserted for long-term intravenous antibiotics administration. She was discharged well after the completion of antibiotics. She otherwise has no other symptom related to the neglected guidewire.

The patient was referred to the interventional radiology team to retrieve the retained guidewire. Ultrasound assessment of the femoral and internal jugular vein was performed and showed no evidence of thrombosis. The right femoral vein was used as the venous access.

Guidewire Retrieval

The retained guidewire was retrieved using a 6Fr snare loop catheter (CloverSnare™, 4 loops

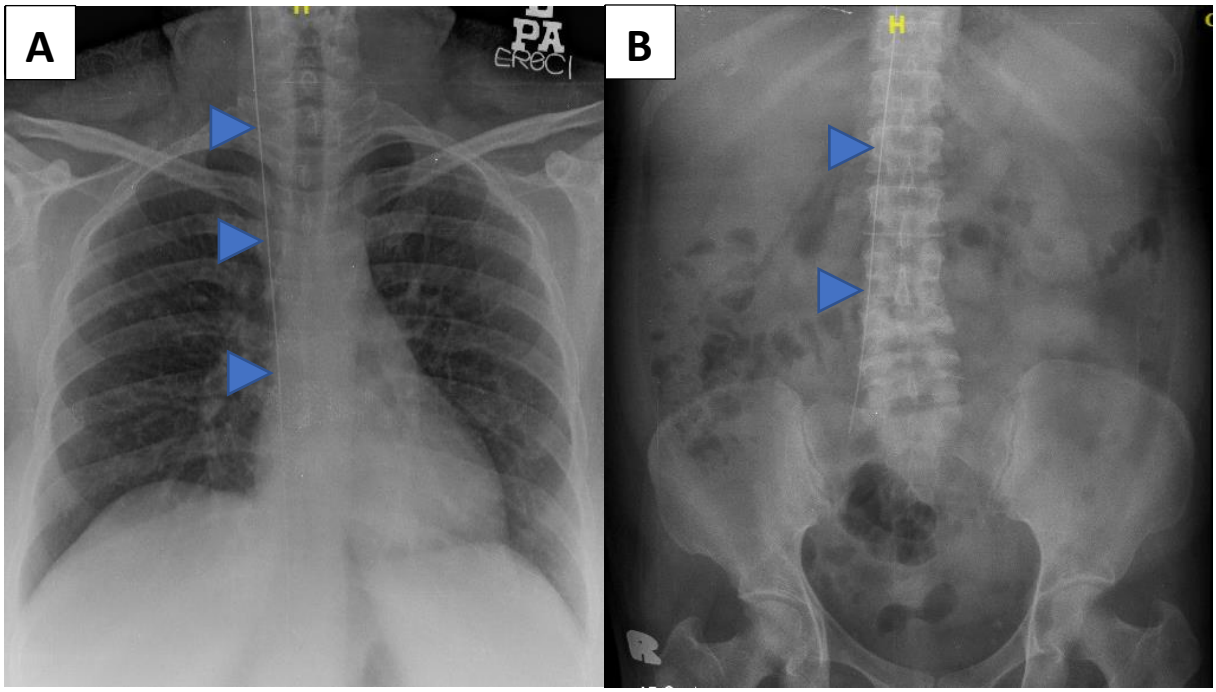

Figure 1: Figure 1: The chest (A) and abdominal (B) radiograph show the neglected J-tip guidewire (arrowhead) likely in the right internal jugular vein extending to the inferior vena cava (IVC).

vascular retrieval, Cook Medical USA). This retrieval system consists of a four-loop snare catheter with 8Fr and 10Fr sheaths (Figure 2).

The snare catheter was used only with the 8Fr inner sheath. The initial attempt to grasp the distal tip of the retained guidewire in the right common iliac vein was failed, likely due to the tip embedded in the vessel wall. Then, a decision was made to snare the proximal tip in the right internal jugular vein. The floppy J-tip part of the guidewire was able to catch using the snare. A resistance was felt during the attempt to retract the snare and the guidewire into the sheath. Force was used, and the floppy part of the guidewire was snapped during the manoeuvre (Figure 3). The snare catheter and its inner sheath were removed as a whole to recover the broken guidewire segment, leaving its main bulk and inner monofilament floating in the right internal jugular vein.

A subsequent attempt was made to snare the remaining guidewire. The unwinded guidewire and the monofilament were gripped using the snare and were engaged with the sheath. The system was slowly withdrawn. However, the monofilament was stretched and dislodged during this manoeuvre, causing dangling of the unwinded outer spiral and inner filament of the catheter in the right atrium (Figure 4).

Another attempt was made to snare this dislodged guidewire and monofilament. It was difficult to snare the monofilament due to the constant motion in the heart chamber. The snare was placed adjacent to the filament as a solution, and a twisting motion was performed to entangle it. The snare then was engaged with the inner sheath (8Fr), and some traction was applied. The bigger (10Fr) outer sheath was used this time. This sheath was advanced beyond the inner sheath and distally over the rest of the guidewire. The snare, inner sheath and the guidewire were removed as a whole, leaving the outer sheath in the vena cava (Figure 5). Post-procedural angiographic run and radiograph showed no remaining foreign body.

DISCUSSION:

Central venous catheterisation is a commonly performed procedure. The central venous catheter is used mainly for administering intravenous medications, fluids and parenteral nutrition. It is also used for hemodialysis and monitoring haemodynamics variables [4].

The most common reported guidewire related complications are cardiac dysrhythmias, cardiac conduction abnormalities, and, perforation of the vessels or heart chamber, kinking, looping and knotting of the wire, breakage of the tip of the guidewire and also complete loss of the guidewire within the vascular system [1, 2]. Broken guidewires can migrate intravascularly and cause fatality in up to 20% of the cases [5]. In our case,

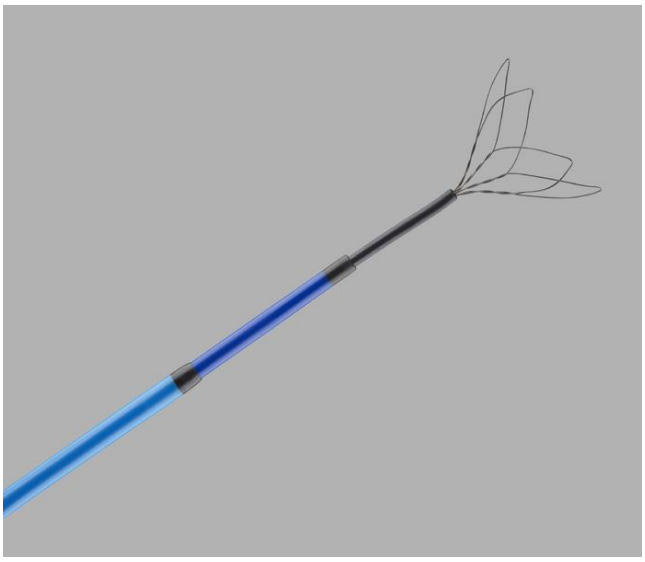

Figure 2: CloverSnareTM, 4 loops vascular retrieval system with 6Fr nitinol snare (black), 8Fr inner (dark blue) and 10Fr outer (light blue) introducer sheaths.

the guidewire was remained unnoticed for almost 17 months. It has not been detected because the patient did not have any symptoms and had no admission to the hospital. The guidewire consists of inner single filament core wire, covered by surrounding coiled wire. The attachment site of the core and outer wire is only at its two ends—no other attachment point between the coiled and core wire [6]. Hence, when the tip of the guidewire is fractured, it may unwind the whole outer sphere (Figure 6 and 7).

Many factors can increase the risk of retention of the guidewire. Some examples that usually occur in clinical practice include distraction during a procedure, high workload of the operator, lack of experience, and lack of supervision. Among these, lack of supervision is the main risk factor usually among trainee doctors [7].

A retained guidewire can be removed either by open surgery or endovascular intervention. The latter is highly advantageous for both the patient and the surgeon [3]. Removing the guidewire can be difficult if it has been epithelialised and fixed. Manoeuvres performed in such cases are the main factors for success. Despite lower risk in endovascular, serious complications still can happen. Therefore, close haemodynamic monitoring is essential with the presence of a surgical standby team is required during a procedure [3]. Surgical removal is indicated when the percutaneous approach is unsuccessful and unavailability of such facilities [5].

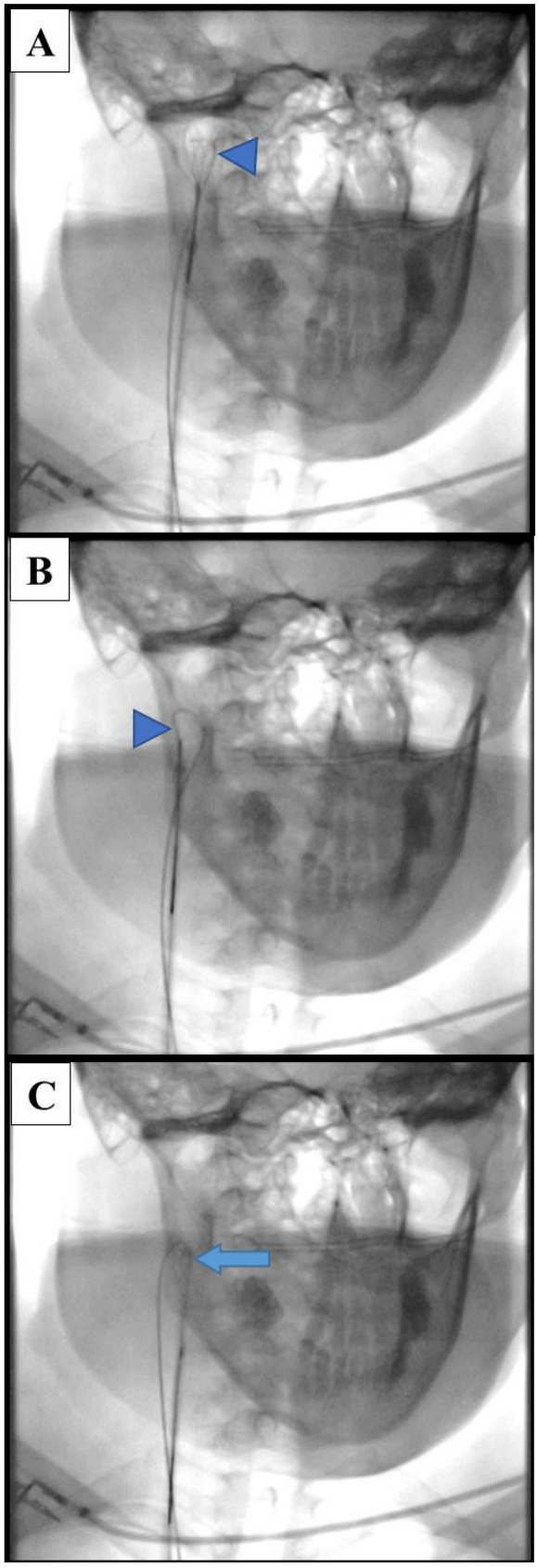

Figure 3: Initial attempt of snaring from the proximal part of the retained guidewire inside the internal jugular vein. (A, B) The floppy tip of the guidewire (arrowhead) was gripped using the snare. (C) The J tip was ruptured during the attempt to retract it into the sheath (solid arrow)

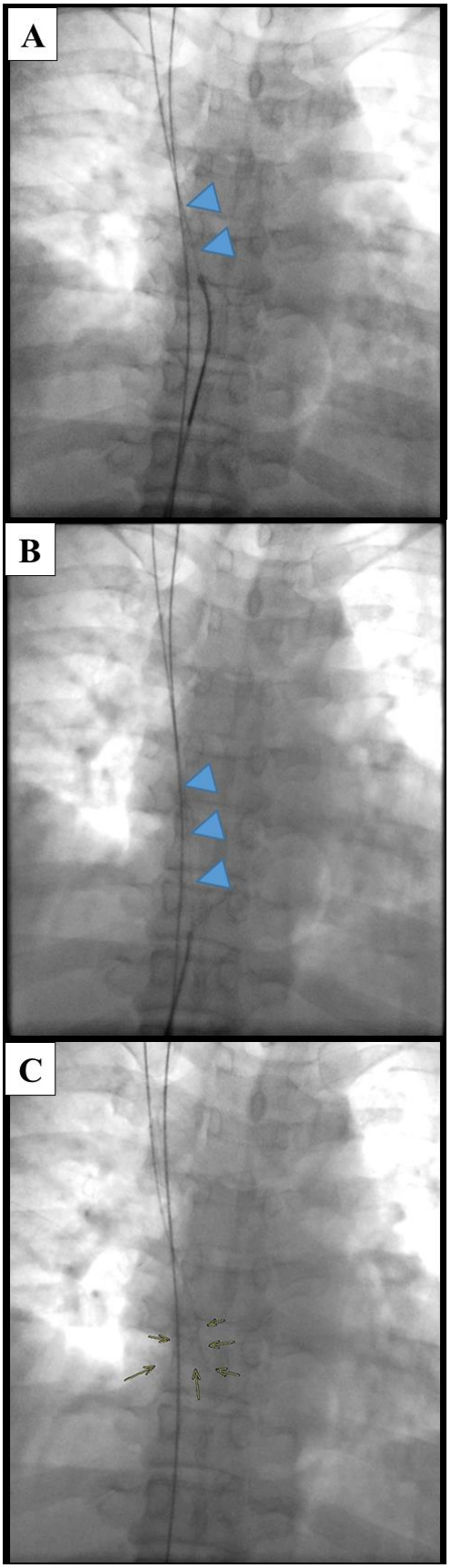

Figure 4: (A, B) Maneuver to bring the dislodged guidewire proximally causes stretching of the monofilament (arrowhead). (C) Dislodged snare results in the proximal guidewire dangling inside the right atrium (yellow arrows).

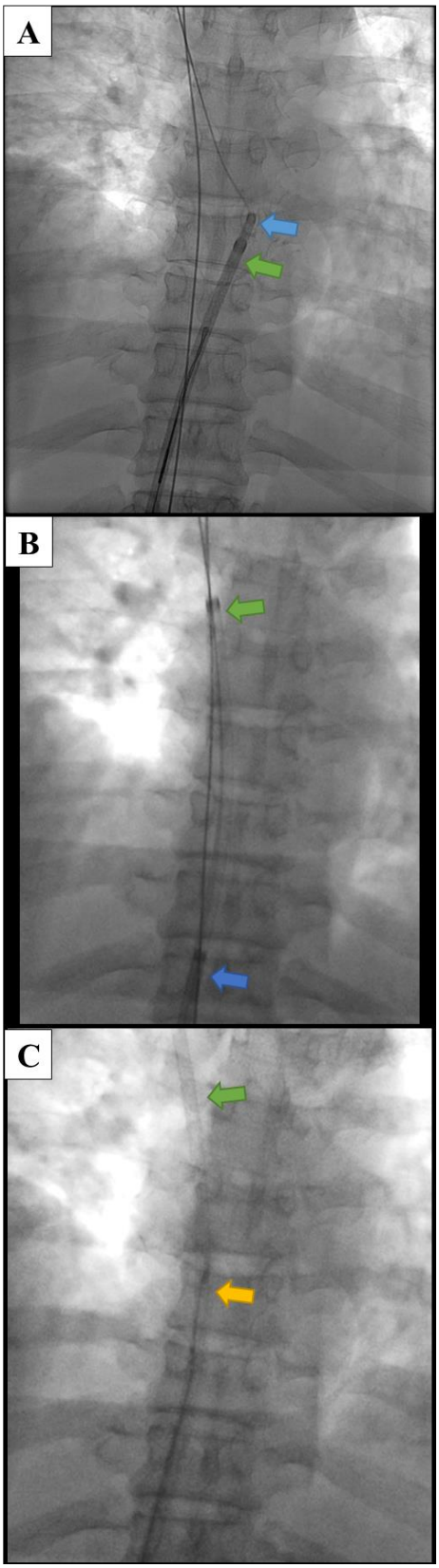

Figure 5: (A-C) The unwinded guidewire and monofilament were captured using snare and engaged into the inner sheath (blue arrow). The outer sheath (green arrow) then moved distally to cover the whole length of the guidewire. The snare, inner sheath and guidewire (yellow arrow) were retracted as a whole

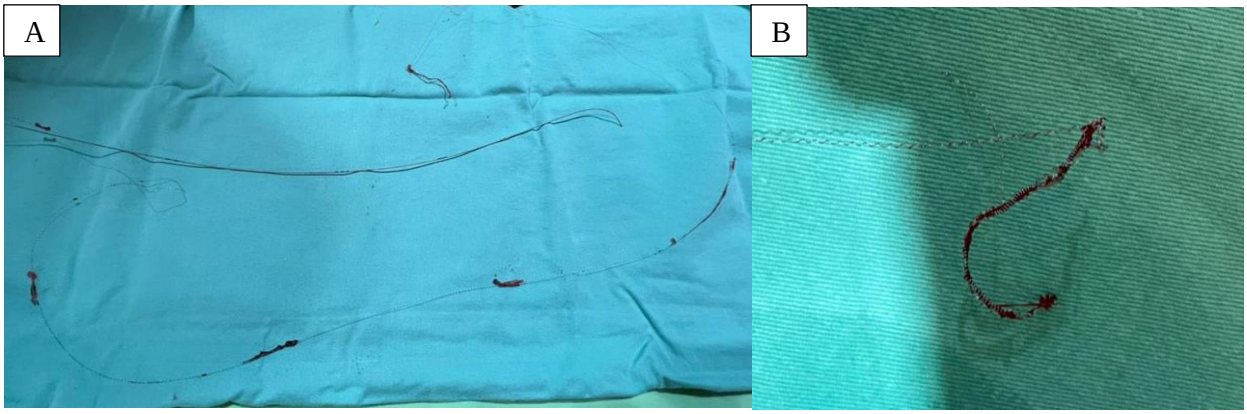

Figure 6: (A) A close-up image of the tip of the unwinding J-tip guidewire after removal. The end of the catheter was twisted and entangled during the retrieval process. (B) The unwinding elongated guidewire was removed as one part

The basic technique in using a snare is the proximal grab technique [8]. An appropriate sized snare is delivered via the straight guide catheter or sheath. The snare is advanced adjacent to the intravascular foreign body. The outer catheter is withdrawn, allowing the snare to open fully. Then the outer catheter is again advanced to trap the guidewire tightly. Afterwards, the whole system, including the foreign body, is retrieved back into the sheath.

The snare catheter system used in our case consists of two sheaths, 8Fr and 10Fr, respectively. Only the 8Fr sheath was used initially. We were able to catch and pull the proximal part of the guidewire. However, we forcefully retracted it into the sheath, causing its rupture. The larger outer 10Fr sheath should be used to cover the foreign body and the inner sheath as recommended by the manufacturer. If the foreign body is not fit in the sheath, once the snare is tightened, the snare and sheath system should be retracted at once as a whole.

Since the incidence of guidewire fracture during angioplasty is rarely reported, evidence-based approaches for managing such incidence are not available [9]. Therefore we tried a few manoeuvres to catch the dangling part of the guidewire. Fortunately, we were able to catch the guidewire with twisting motion as been described above and pulled everything out successfully.

CONCLUSION:

The snare catheter system is primarily designed to retrieve IVC filters; however, it can be used in other intravascular foreign bodies. Long-lasting neglected intravascular guidewire might be difficult to retrieve, and difficulty should be expected. An inexperienced operator should familiarise himself with a new or different catheter system, and supervision is necessary during the procedure to avoid life-threatening complications.

STATEMENT OF ETHICS:

Informed consent was obtained from the patient for the publication of this work.

CONFLICTS OF INTEREST:

We have no known conflict of interest to disclose.

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DATA AVAILABILITY STATEMENTS:

Data used for this work can be accessed at https://interventionjournal.padimedical.com/external/osimis/14b5f4fe-b0c5c84e-66678d3c-8e65f25e-5d998cca. The access code can be retrieved from the corresponding author upon reasonable request.

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