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PSEUDOANEURYSM : MIMICKING A SOFT TISSUE TUMOR

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Manuscript: CRO-2020-4-1 - A RARE CASE OF NEGLECTED RUPTURE OF RIGHT AXILLARY ARTERY
PSEUDOANEURYSM : MIMICKING A SOFT TISSUE TUMOR

Authors: Rosy Setyawati (Corresponding Author), Vivid Umi Varidha (Co-author), Giuseppe Guglielmi (Co-author), Filippo Del Grande (Co-author)

Date submitted: 2020-05-17

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The authors confirm that written informed consent was obtained from the patient for the publication of the case (including publication of images).

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Manuscript: CRO-2020-4-1 - A RARE CASE OF NEGLECTED RUPTURE OF RIGHT AXILLARY ARTERY
PSEUDOANEURYSM : MIMICKING A SOFT TISSUE TUMOR

Authors: Rosy Setyawati (Corresponding Author), Vivid Umi Varidha (Co-author), Giuseppe Guglielmi (Co-author), Filippo Del Grande (Co-author)

Date submitted: 2020-06-28

Dear Dr. Setyawati

We are pleased to inform you that your case report A RARE CASE OF NEGLECTED RUPTURE OF RIGHT AXILLARY ARTERY PSEUDOANEURYSM : MIMICKING A SOFT TISSUE TUMOR has been accepted for publication and passed on to our Production Editing Department. You will hear from your production editor in due course.

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Case Report

A RARE CASE OF NEGLECTED RUPTURE OF RIGHT AXILLARY ARTERY PSEUDOANEURYSM : MIMICKING A SOFT TISSUE TUMOR

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Short Title: A Rare Case of Right Axillary Artery Pseudoaneurysm

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Number of Tables: 0

Number of Figures: 6

Word count: 2147

Keywords: a rare case, pseudoaneurysm axillary artery, neglected pseudoaneurysm mimicking soft tissue tumor

Abbreviations :

MRI : Magnetic Resonance Imaging

CT Scan : Computed Tomography Scan

CT Angiography : Computed Tomography Angiography

FNAB : Fine Needle Aspiration Biopsy

US : Ultrasound

1.5 T MRI : 1,5 Tesla Magnetic Resonance Imaging

T1WI : T1-weighted Image

T2WI : T2-weighted Image

Fat Sat : Fat Saturation

CRP : Chain Reactive Protein

DSA : Digital Substraction Angiography

MRA : Magnetic Resonance Angiography

1 **Abstract**

2 Traumatic lesions of the axillary artery itself are limited to 2.9% to 9% of major arterial injuries.
3 Pseudoaneurysms represent a pulsating encapsulated hematoma in communication with the lumen
4 of a ruptured vessel. Traumatic pseudoaneurysm of the axillary artery is a rare sequela of injury to
5 shoulder region. We describe a case of post-traumatic pseudoaneurysm involving the axillary artery,
6 which was initially misdiagnosed as an aggressive soft tissue tumor. The man presented after ten
7 years of an injury fall from a tree with slowly growing mass in right upper limb region and reduced
8 range of movement. This is a neglected case, with history traditional massage. Patient presented
9 pathologic fracture of right proximal humerus and dislocation of glenohumeral joint. At the
10 beginning, it was suggested as primary soft tissue tumor, after underwent several examination
11 include comparable x-ray, ultrasound and histopatology, the results were not supporting of soft
12 tissue tumor. MRI and CT angiography finally confirmed the finding of a pseudoaneurysm of right
13 axillary artery associated with huge different age of the bleed and granulation tissue. This case
14 demonstrates the necessity of early diagnosis of axillary artery pseudoaneurysm to prevent
15 complications after history of trauma. CT Angiography are useful modalities to evaluate vascular
16 injury and provide valuable information.

17

18

19 **Introduction**

20 Injury to the axillary artery after traumatic of the shoulder is extremely rare. Traumatic lesions of the
21 axillary artery itself are limited to 2.9% to 9% of major arterial injuries(1). Injury to the shoulder
22 region is the most commonly complications of dislocated shoulder joint, humeral fractures, plexus
23 brachialis injuries and also vascular injury(1-15). Pseudoaneurysms represent a encapsulated
24 hematoma in communication with the lumen of a ruptured vessel(1-17). Traumatic pseudoaneurysm
25 of the axillary artery is a rare sequela of injury to shoulder region(1,3,5,9,13).

26 **Case Report/Case Presentation**

27 We presented a rare case of a 67-year-old male patient admitted in our hospital with a slow growing
28 mass in the right upper extremity. The patient reported felt from a tree 10 year prior to the hospital
29 admission. After a year of injury the patient had begun to complain a lump with gradually enlarging
30 mass in the axillary region. No history of neurological deficit was found. Our physical exam showed a
31 firm, tender, non-pulsatile and immobile mass with unclear boundary and we suspected a primary
32 soft tissue tumor shown in **Figure 1**.

33 X-ray examinations, showed destruction of the right proximal humerus with glenohumeral
34 dislocation and a large soft tissue mass surround it. An oval shaped eggshell calcification also found
35 in the axillary region. Marked erosion seen at the adjacent glenoid fossa and acromial with sclerotic
36 changes with widening of the glenohumeral joint space. Based on the imaging findings, we suspected
37 malignant soft tissue tumor with following bone destruction shown in **Figure 2**.

38 To better investigate the suspected soft tissue mass, we performed an ultrasound exam followed by a
39 ultrasound guided fine needle aspiration biopsy. A large soft tissue mass of the right shoulder with
40 multiple cystic hypoechoic foci and deformities of surrounding bone were found. These findings
41 lead to a feature of primary soft tissue tumor shown in **Figure 3**. No significant abnormal vascular
42 filling was found in colour doppler US, the mass size was too large with limited US frequency
43 penetration.

44 Regarding to indication of soft tissue tumor, FNAB guiding ultrasound was obtained with the
45 conclusion of a chronic suppurative inflammation and no visible signs of malignancy shown in **Figure**
46 **4**. Needle biopsy result was inconclusive and patient continued to perform further imaging
47 investigations.

48 1.5 T MRI exam confirmed the a large mixed cystic-semisolid soft tissue mass of right shoulder with
49 bone destruction of the right proximal humerus as well as glenohumeral joint dislocation.
50 Hemorrhagic foci were found as hyperintense signal on T1WI and hypointense rim at the peritumoral

51 region on T2WI. In the axilla region there was also an oval lesion with multilayer walls which
52 consisted of mixed hypointense and hyperintense impresing a vascular aneurysm with different age
53 of bleeding product. After contrast administration on this oval lesion revealed relatively homogenous
54 contrast filling located in the central part of massive mass at the right axillary region and rim contrast
55 enhancement in the surrounding muscle structures seen on coronal and axial T1WI, T2WI, T1WI with
56 contrast sequences shown in **Figure 5**. We suspected a neglected axillary artery pseudoaneurysm
57 due to previous humeral head trauma.

58 CT scan was performed to confirm the finding of pseudoaneurysm and demonstrated the presence of
59 rounded contrast enhanced lesion indicating to right saccular axillary artery pseudoaneurysm with
60 a narrow neck approximately 5.1 mm in diameter and the height of 3.5 cm as well as the width of
61 3.2 cm projected lateral to axillary artery shown in **Figure 6**.

62 Patient had been planned for surgical exploration. Unfortunately this procedure could not be
63 performed regarding to unstable condition of the patient due to sepsis complication with elevation
64 of CRP results of 11.10 mg /dl and the Hb level was decreased. Finally this patient passed away,
65 caused by septic problem.

66 **Discussion/Conclusion**

67 Pseudoaneurysms of the axillary artery are rare complication after blunt trauma in the axillary region
68 (1-15). In the case of blunt trauma tends to occur a shoulder joint related bone injury and most often
69 an anterior dislocation (3,4,5,8), where axillary artery damage has been reported in a prevalence of
70 about 0.3% (2,3). Other injuries that can occur are fractures of the humeral neck and the proximal
71 humerus (5). In reports by Erler et al.(16), and Kim et al. (17), the diagnosis of pseudoaneurysms was
72 not straightforward. This pathological condition often does not occur at the beginning of post
73 trauma, but it often arrives too late (5). Indeed clinical suspicion can be lessened by the absence of
74 hard initial signs of arterial injury. It is very important to raise suspicion of pseudoaneurysm in order
75 to avoid complications such as brachial plexus injury (5). Since this patient presented late , without
76 any typical features of pseudoaneurysm, it was misdiagnosed as soft tissue tumor. We reported a
77 rare case of patient with a missed ruptured axillary artery pseudoaneurysm, that underwent several
78 radiological examinations and FNAB.

79 An aneurysm is a bulging, weakened area in the wall of a blood vessel resulting in an abnormal
80 widening or ballooning greater than 50% of the vessel's normal diameter. An aneurysm may occur in
81 any blood vessel, but is most often seen in an artery rather than vein (1). Aneurysms can develop in
82 all arteries of the human body. Morphologically there are two main types of aneurysms: saccular and

83 fusiform aneurysms. In the other hand, pseudoaneurysm, or false aneurysm, is not an enlargement
84 of any of the layers of the blood vessel wall. A false aneurysm may be the result of a prior surgery or
85 trauma. Sometimes, a tear can occur on the inside layer of the vessel. As a result, blood fills in
86 between the layers of the blood vessel wall creating a pseudoaneurysm(10). The pathogenesis of
87 axillary artery pseudoaneurysm is still debatable. The anatomical position of the vessel is thought to
88 play a role in its susceptibility to trauma. Some studies have suggested that injury may arrive as a
89 consequence of the position of the axillary artery, fixed between the anterior and posterior
90 circumflex arteries and the scapular arteries. Another theory sustains that movement of the humeral
91 head into hyperabduction compresses and distorts the vessel against the pectoralis minor; moreover,
92 the axillary artery displays a degree of anatomical variation in its course, which may contribute
93 further to this susceptibility to injury(11).

94 The complications of pseudoaneurysm can be rupture, distal thromboembolism and the effects of
95 compression. Infection, polyarteritis nodosa, congenital arterial defects, and especially trauma play a
96 role in the pathogenesis of upper extremity pseudoaneurysms. If the only causal factor is trauma, the
97 aneurysm takes the form of a pseudoaneurysm(3). The early diagnosis of upper-limb
98 pseudoaneurysms should prevent the risk of vascular and neurological compromises with potential
99 serious long-term sequelae (11). When a pseudoaneurysm is clinically suspected, imaging modalities
100 such as ultrasound examination, CTA, MRA, or DSA may be useful to assist in diagnosis [1]. Compared
101 to other imaging modalities, ultrasonic examination is cheap and non-invasive, and has the
102 advantage of being able to be performed at the patient's bedside. Digital Subtraction Angiography
103 (DSA), employed as the definitive diagnostic modality for vascular injury, has the advantage of
104 enabling the placement of a stent or occluding balloon as an endovascular treatment as required.
105 However, conventional diagnostic DSA also has the disadvantage of being time consuming and
106 invasive, and may be associated with serious complications. CT angiography (CTA) is a modality to
107 study arterial anatomy, with the additional advantages of being non-invasive and able to evaluate
108 arterial trauma rapidly and reliably, reducing the delay before repair of the injury[1,3,7].
109 Misdiagnosis or delayed diagnosis of axillary pseudoaneurysm may result in upper limb morbidity or
110 patient mortality(8).

111 In the presented case, pseudoaneurysm is known to be delayed because the clinical presentation is
112 obscured by a soft tissue mass suspected as a primary soft tissue tumor. Initial radiological and
113 histopathologic examinations lead to a primary soft tissue mass. Following further evaluation using
114 MRI resulted in right axillary artery pseudoaneurysm with a huge hematoma involving muscle

115 structures with different age of bleeding product. Finally, the diagnosis is confirmed by CTA
116 examination. Patient was suffered from infection complication causing the mortality.

117 Axillary artery pseudoaneurysms are rarely found in axillary region trauma(1-5), in this case the
118 presence of axillary artery pseudoaneurysms may be due to trauma and may be aggravated by
119 traditional massage. As described by some authors, pseudoaneurysm may occur immediately after
120 primary or delayed injury, due to an initially small aneurysm size and a good collateral on the upper
121 extremities (1). Such cases have also been reported by several authors, including B Dympep et al(3),
122 who reported some cases in patients with left shoulder region trauma with axillary artery
123 pseudoaneurysms mimicking soft tissue tumors with brachial plexus injury. The diagnosis was done
124 with Doppler ultrasound which results in confirmation with CT angiography(3). Therefore, a good
125 communication between clinician and radiologist is needed in handling any case by exploring the
126 patient's disease history, so that an optimal imaging diagnosis can be reached immediately and then
127 optimum therapy can be done properly to avoid the worst complication occurred that may cause
128 patient's mortality.

129 Conclusion

130 Imaging using Doppler ultrasound, DSA, CTA, MRA are useful modalities in evaluating arterial injury.
131 CTA is modality to study arterial anatomy, with the additional advantages of being non-invasive and
132 able to evaluate arterial trauma rapidly and reliably, reducing the delay before repair of the injury,
133 however delayed diagnosis of axillary pseudoaneurysm result in upper limb morbidity or patient
134 mortality.

135

136

137 **Data Availability**

- 138 1. The case report data used to support to finding of this study are included within article
139 2. The case report data aren't current embargo while the case fining are commercialised.
140 3. The case report data used to support findings of this study may be released upon application
141 to Airlangga University by contacting email address rosy-s@fk.unair.ac.id

142 **Statements**

143 All papers must contain the following statements after the main body of the text and before the
144 reference list:

145 **Acknowledgement (optional)**

146 Special thanks to Zahrona Kusuma for conducting the manuscript

147 **Statement of Ethics**

148 Ethical approval for this study was obtained from Dr Soetomo General Hospital ethic committee
149 (400/03/K.3/CR/302/2018)*.

150 The authors confirm that written informed consent was obtained from the patient for the publication
151 of the case (including publication of images).

152 **Disclosure Statement**

153 The authors have no conflicts of interest to declare

154 **Funding Sources**

155 We don't have any founding

156

157 **Author Contributions**

158 Rosy Setiawati : contributes in preparing the case report design, collecting & analysing datas of the
159 patient and writing the manuscript .
160 Vivid Umu Varidha : contributes in collecting datas of the patient and writing the manuscript
161 Giuseppe Guglielmi : contributes in reviewing this article and giving methodology design.
162 Filippo Del Grande : contributes in reviewing this article, giving methodology design and analysing
163 data.

References

- 164 [1] Chen L, Peng F, Wang T, Chen D, Yang J. Traumatic Pseudoaneurysm of Axillary Artery
165 Combined with Brachial Plexus Injury. PLOS ONE. 2014; 9:11.
166 DOI: <https://doi.org/10.1371/journal.pone.0113099>
- 167 [2] AJ Moss, D Valenti, SC Fraser, J Murie. An usual shoulder injury. JSCR 2011. 10;9.
168 DOI: <https://doi.org/10.1093/jscr/2011.10.9>
- 169 [3] B.Dympep, S.Khangarot, N. Hadke. An unusual shoulder presentation of traumatic
170 pseudoaneurysm of axillary artery mimicking soft tissue tumor. JSCR 2012; 10:17 .
171 DOI: [10.1093/jscr/2012.10.17](https://doi.org/10.1093/jscr/2012.10.17)
- 172 [4] Bertrand JC, Maestro M, Pequignot JP, Mouiel. Vascular complications of simple anterior
173 dislocations of the shoulder. Three cases. J Ann Chir. 1982; 36:329.
174 DOI: [10.1002/bjs.1800670817](https://doi.org/10.1002/bjs.1800670817)
- 175 [5] Fitzgerald KF, Keates J. False aneurysm as a late complication of anterior dislocation of the
176 shoulder. Ann Trauma. 1975; 181:785. DOI: [10.1097/00000658-197506000-00002](https://doi.org/10.1097/00000658-197506000-00002)
- 177 [6] Gallen J, Wiss DA, Cantelmo N, Menzoin JO. Traumatic pseudoaneurysm of the axillary
178 artery: report of three cases and literature review. J Trauma. 1984; 24:350 2.
- 179 [7] Goncu T, Toktas F, Tiryakioglu O, Yumun G, Demirtas S. Posttraumatic True Aneurysm of the
180 Axillary Artery Following Blunt Trauma. Case Reports in Medicine. 2010.
181 DOI:[10.1155/2010/210391](https://doi.org/10.1155/2010/210391)
- 182 [8] Katie Whittam, Maryan Hardy. A case study of an axillary artery pseudoaneurysm following
183 anterior dislocation of glenohumeral joint : A rare presentation of plain radiographs. Elsevier
184 2007. DOI: <https://doi.org/10.1016/j.radi.2007.01.002>

- 185 [9] Laura P, Djelloul G, Julie D. Delayed axillary artery pseudoaneurysm as an isolated
186 consequence to anterior dislocation of the shoulder. *Ann Vasc Surg* 2012; 26:279.
187 DOI: 10.1016/j.avsg.2011.05.039
- 188 [10] Mehrpooya M, Salehi M, Eskandari R, Shajirat Z, et al. Diagnostic dilemma: Saccular
189 aneurysm of pseudoaneurysm of the ascending aorta with dissecting above level of leaflets.
190 *ARYA Atheroscler*. 2012 Fall; 8(3): 167–169.
- 191 [11] Songur M, Sahin E, Kalem M, Zehir S., Amputation for upper extremity ischemia following
192 shoulder dislocation: case report and a review of literature. *The European Research Journal* .
193 2015;(2):66. DOI: 10.18621/eurj.2015.1.2.66
- 194 [12] Schumann D, Superti M, Seyboth F, Jacomel G. Brachial plexus injury secondary to
195 pseudoaneurysm of axillary artery after glenohumeral dislocation: case report. *Rev Bras*
196 *Ortop*. 2017; 52(4): 491–495. DOI: 10.1016/j.rboe.2017.06.004
- 197 [13] Sandiford N, Tsitskaris K, Erritty M. Delayed presentation of a pseudoaneurysm of the
198 subclavian and axillary artery – the importance of vigilance. *J R Soc Med* 2010; 103: 67–69.
199 DOI : 10.1258/jrsm.2009.090454
- 200 [14] Akcali Y, Kahraman C, Ozcan N, Olgun K. A Giant Aneurysm of branch of Axillary Artery. *J Vasc*
201 *Surg* 2008;47-881. DOI : 10.1016/j.jvs.2007.04.059.
- 202 [15] Gasparini M, Jakomin T. Endovascular treatment of an Axillary Artery Pseudoaneurysm after
203 Anterior Shoulder Dislocation: A Case Report. *Zdrav Vestn* 2011; 80: 422–426.
- 204 [16] Erler K, Ozdemir MT, Oguz E, Basbozkurt M. Does false aneurysm behave like a sarcoma?
205 Distal femoral arterial false aneurysm simulated a malignant mesenchymal tumor. A case
206 report and review of the literature. *Arch Orthop Trauma Surg*. 2004;124(1):60–63. DOI:
207 10.1007/s00402-003-0595-8
- 208 [17] Kim YJ, Baek WK, Kim JY, Park SW, Jeon YS, Lee KH, et al. Pseudoaneurysm of the popliteal
209 artery mimicking tumorous condition. *J Korean Surg Soc*. 2011;80(Suppl 1):S71–74. DOI:
210 10.4174/jkss.2011.80.Suppl1.S71

211
212
213

215 Figure 1



Figure 2

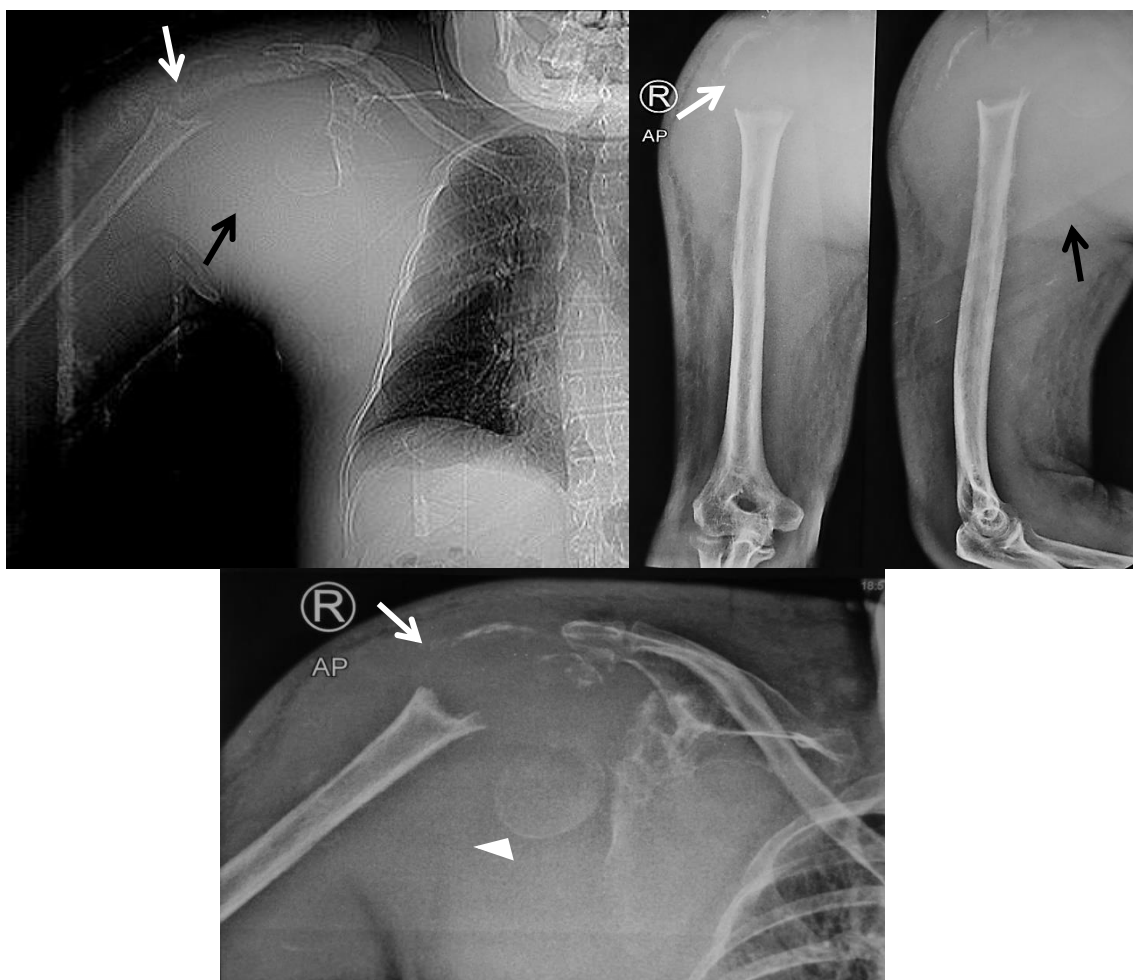


Figure 3.

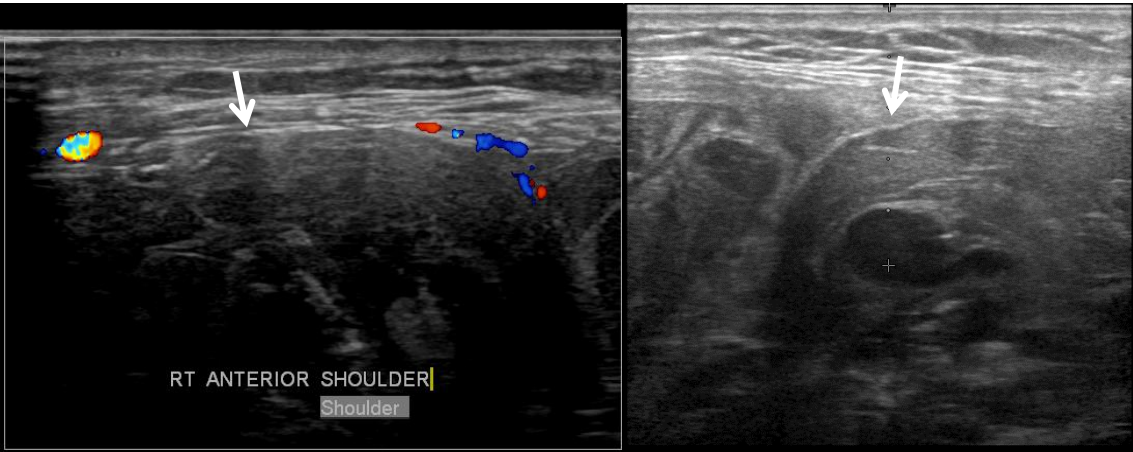


Figure 4.

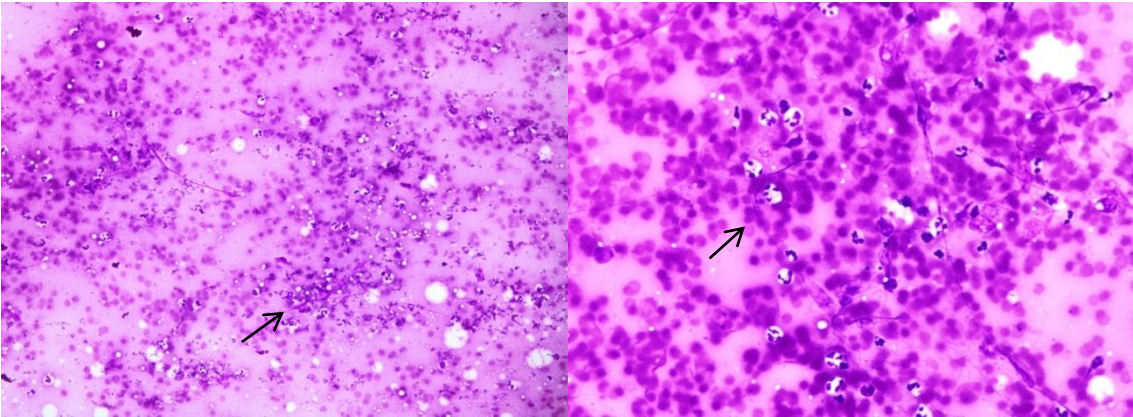


Figure 5.

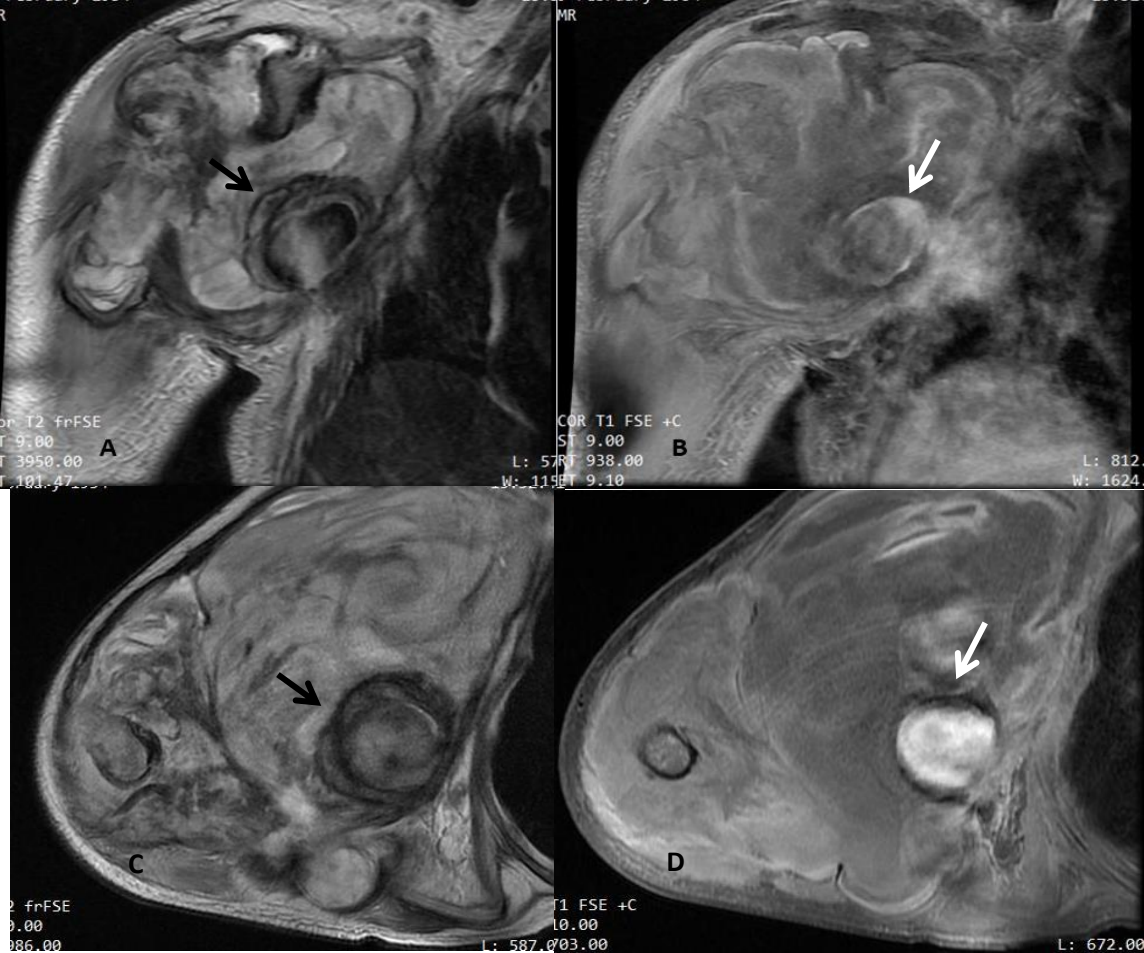
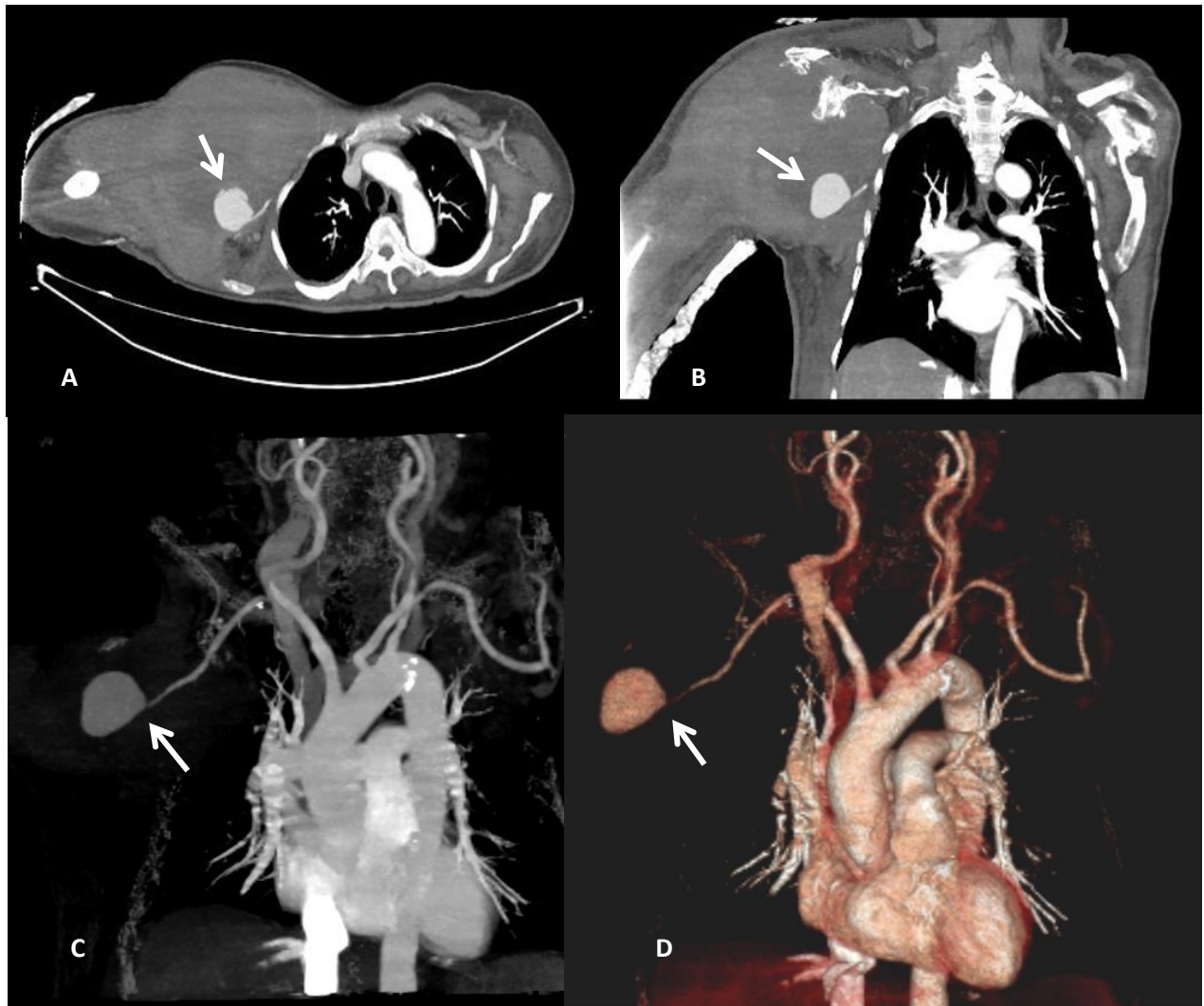


Figure 6.



LEGENDS

216 **Figure . 1**

Clinical photograph of pseudoaneurysm of right axillary artery. A large growing mass of the right shoulder showed firm palpation, warm, unclear boundary, tenderness, immobile, and non pulsatile (black arrows).

217 **Figure. 2**

218 **Right AP shoulder and AP-lateral humerus radiographs.** Radiograph showed destruction of the
219 right proximal humerus with medioinferior bony avulsion of the humeral head (white arrows) with

220 a large soft tissue swelling surround it (black arrows). Marked erosion seen at the adjacent glenoid.
221 An oval-shaped eggshell calcification also found in the axillary region(white arrow head).

222 **Figure . 3**

223 **Ultrasonography of right shoulder.** A large soft tissue mass of the right shoulder with multiple cystic
224 hypoechoic foci which is lacking of pulsation on colour doppler (white arrows).

225 **Figure 4.**

226 Histopatology results were a chronic suppurative inflammation and no sign of malignancy (black
227 arrows).

228 **Figure 5.**

229 **Shoulder MRI on axial - coronal T2W1 (A,C) and T1 Fat Sat With Gadolinium contrast (B,D).**
230 MRI showed mixed cystic semisolid mass involving the surrounded muscles in the right shoulder.
231 Mass consisted of an oval lesion in the axillary region with multilayer thick walls of mixed
232 hypointense and hyperintense signal intensities(black arrows). After contrast administration showed
233 relatively homogenous oval shaped contrast filling (white arrows) located in the central part of
234 massive mass at the right axillary region, confirming a right axillary artery pseudoaneurysm with
235 different age of bleeding product and rim contrast enhancement in the granulation tissues.

236 **Figure. 6**

237 **CTA of right shoulder in axial – coronal slices (A,B), coronal MIP (C) , and volume rendered (D)**
238 **images).**

239 CTA showed an oval contrast enhanced lesion indicating to right saccular axillary artery
240 pseudoaneurysm (white arrows) with a narrow neck approximately 5.1 mm in diameter and the
241 height of 3.5 cm as well as the width of 3.2 cm projected lateral to normal axillary artery.

242

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A RARE CASE OF NEGLECTED RUPTURE OF RIGHT AXILLARY ARTERY
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Setiawati R., Varidha V.U., Guglielmi G., et al.
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