Inflammatory aortic wall development after EVAR: case report

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Disclosure of Interest

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✓ I do not have any potential conflict of interest
Introduction (1)

• Peri-aortitis associated with inflammatory abdominal aortic aneurysm is a well known condition, usually treated by open or endovascular technique.

• Peri-aortic inflammation after endovascular aneurysm repair (EVAR) is on the other hand a quite rare condition.
Introduction (2)

• **Post** implantation *syndrome* (PIS) after EVAR is an inflammatory response usually happening the first days after the procedure.

• An universally accepted definition is missing.
Case Report (1)

• 72 years old female
• Followed since 2015 for subrenal aortic aneurysm
• Diameters: 2015: 3,6cm  2016: 4,7cm  2018: 5,5cm
• November 2018: EVAR without per or post op complication
• Lab test D+2: CRP 158,7 mg/L, WBC 11650/mm3
• Post EVAR CT Scan showed no evidence of endoleak or peri-aortitis
Case Report (2)

Intra-operative

Post EVAR CT scan
Case Report (3)

- 3 months post EVAR:
  - Elevated CRP (22mg/L) with a normal count of WBC (6620/mm3)
  - CT scan: absence of endoleak, regression of the size of the aneurysm
  - Inflammatory peri-aneurysmal shell

- 6 months post EVAR:
  - Elevated CRP (33mg/L) with normal count of WBC (7820/mm3)
  - CT scan: absence of endoleak, regression of the size of the aneurysm
  - Regression of the size of the inflammatory shell
Case Report (4)

3 months post EVAR

6 months post EVAR
Discussion (1)

• Peri-aortic inflammation after EVAR is a rare but already described condition.\(^{(1,2,3,4)}\)

• Inflammatory aortic wall development after EVAR could belong to the **Post Implantation Syndrome** (PIS).\(^{(5,6)}\)

• PIS is defined by elevated WBC and CRP, associated with fever in an early phase after EVAR.
• A recent study by Arnaoutoglou showed a correlation between PIS and cardiovascular or other adverse event during the first year after EVAR.\textsuperscript{(5,6)}

• The inflammatory response in PIS is attenuated after the first month, but the risk of cardiovascular and other adverse event is still higher during the first year.\textsuperscript{(6)}

• Whether it should be treated or not is not well defined yet.

• We need further studies to determine if a treatment is necessary, in order to lower this adverse event risk.
Bibliography

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Thank u for your attention