We report a case of surgical central venous port system implantation using Seldinger’s technique with a life-threatening mediastinal hematoma due to the perforation of the superior vena cava” Sarach et al (2015).

Abstract:

BACKGROUND: We report a case of surgical central venous port system implantation using Seldinger’s technique with a life-threatening mediastinal hematoma due to the perforation of the superior vena cava.

CASE REPORT: A 68-year-old woman was admitted to our institution for port implantation. Open access to the cephalic vein and 2 punctures of the right subclavian vein were unsuccessful. Finally, the port catheter could be placed into the superior vena cava using Seldinger’s technique. As blood aspiration via the port catheter was not possible, fluoroscopy was performed, revealing mediastinal contrast extravasation without contrasting the venous system. A new port system could be placed in the correct position without difficulties. After extubation, the patient presented with severe respiratory distress and required consecutive cardiopulmonary resuscitation and reintubation. The CT scan showed a significant hematoma in the lower neck and posterior mediastinum with tracheal compression. We assumed a perforation of the superior vena cava with the tip of the guidewire using Seldinger’s technique. Long-term intensive treatment with prolonged ventilation and tracheotomy was necessary. The port system had to be subsequently explanted due to infection.

CONCLUSIONS: Mediastinal hematoma is a rare but life-threatening complication associated with central venous catheterization using Seldinger’s technique. Perforation occurs most often during central venous catheterization in critical care. Mediastinal hematoma is an example of a mechanical complication occurring after central venous catheterization, which has been described only a few times in the literature to date. This case highlights the importance of awareness of possible, rare, life-threatening complications during port implantation, mostly performed in multimorbid patients by surgeons in training.
Reference:


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