

the location of steno-occlusions, the existence of diabetes mellitus, and the history of central catheter. **Results:** Stents were implanted in 294 patients in 1016 procedures. All but one of the procedures was technically successful (99.7%). The one patient with an unsuccessful procedure was due to incomplete stent expansion. Two stent migrations were occurred as major complication without other. The primary patency rate for 6, 12, 24, and 36 months was 44%, 18%, 5%, and 2%, respectively (mean: 7.9 months). Repeat interventions, including additional balloon angioplasty and stent placement, were required in 172 patients (average: 2.54). There was no statistic difference except the history of central catheter ($P = 0.0128$). The secondary patency rate for 6, 12, 24, 36, 48, and 60 months was 80%, 67%, 42%, 37%, 30%, and 20%, respectively. **Conclusion:** Percutaneous central venous stent implantation in hemodialysis patients is useful in patients with suboptimal angioplasty and it was safe and effective to restore the hemodialysis function. However, repeat interventions are usually required to prolong the stent patency.

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Successful Implementation of Electrocardiographic-Guided Peripherally Inserted Central Catheter Placement by a Nurse-Lead Peripherally Inserted Central Catheter Placement Team

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Background: The use of electrocardiographic guidance has been shown to be safe and effective for the placement of peripherally inserted central catheters (PICCs). The goal of this study was to evaluate the Sherlock 3CG tip confirmation system (TCS) in the placement of PICCs (using chest radiographs as the golden standard) and then to successfully implement use of the Sherlock to reduce the utilization of chest radiographs for PICC positioning at our institution. **Methods:** From January to June 2017, we analyzed the positions of PICCs placed with the Sherlock 3CG TCS. A chest radiograph performed after each PICC placement was interpreted by four independent observers. A catheter tip located within the superior vena cava (SVC) or cavoatrial junction was considered successful placement of PICC. The study comprised a total of 130 PICC placements. Exclusion criteria included atrial fibrillation, atrial flutter, or atrial dysrhythmias. Fifty-one PICC placements were included in the first phase of trial. PICC training in Phase 1 included 1-h training by the company Rep. 1 h online course. Hands-on training for tip confirmation was not mandatory to start the PICC insertion. Seventy-nine PICC placements were comprised Phase 2 of the trial. This time the hands-on training was made mandatory. **Results:** Results of Phase 1 were not satisfactory, with 82% of PICCs placed in the SVC or cavoatrial junction. Results of Phase 2 were considered satisfactory, with 96% of PICC placements into the SVC or cavoatrial junction. **Conclusion:** The Sherlock 3CG TCS is an effective device for guiding PICC placement to the SVC or cavoatrial Junction. Sufficient educational training is important to achieve a successful transition from radiographic confirmation to usage of the Sherlock 3CG TCS. This device will generally eliminate

the need for radiographic confirmation of PICC placement in our patient population, except for patients with atrial fibrillation, atrial flutter, or atrioventricular junctional arrhythmic patients.

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Incidence of Finding Abdominal Aortic Aneurysm in Abdominal Computed Tomography Scan and its Implication on its Prevalence in Saudi Arabia

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Background: In Saudi Arabia, the number of thoracic and abdominal aortic aneurysms (AAAs) treated does not exceed 200/year. For a population of over 30 million, this number is far below international standards. The lack of studies on incidence of AAA in the gulf has left many questioning whether AAA is massively underdiagnosed or whether the prevalence is inferior to international standards. We designed a study to estimate the prevalence of AAA in our region. **Methods:** This was a retrospective review of all abdominal computer technologies (CTs) done from January 1, 2011, to December 31, 2016, in our hospital. We included all male patients at age 65–75 years in whom a CT was done for reasons other than diagnosing and managing aortic aneurysms. All external aortic diameters of 3 cm or more were considered positive for AAA. **Results:** The total number of reviewed CTs was 2032. The mean age was 69.8 ± 3.1 years and the mean aortic size was 1.9 ± 0.3 cm. There were 2026 cases (99.7%) with sizes <3 cm and the mean age was 69.8 ± 3.1 years. There were six cases (0.3%) with sizes ≥ 3 cm and the mean age was 72.3 ± 3.1 years. The only statistically significant factor for AAA was age, 69.8 versus 72.3 ± 3.1 years ($P = 0.0433$). **Conclusion:** Based on our data, the number of AAA in our population is inferior to most international screening programs. This low incidence could explain the far inferior number of diagnosed AAA in our population, and there are a number of scientific theories to support this result. However, these data are from a tertiary referral center, and many risk factors for AAA were not available. A pilot screening program in the nonhospital population would provide more robust evidence on the need of an AAA screening program.

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Endovascular Treatment of Aneurysms of the Popliteal Artery

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Background: Arterial aneurysms of the lower limbs account globally 16% of arterial aneurysms, 70% of which are located in the popliteal arteries. Their prevalence is at 1% increasing with age. It usually falls within the context of an