CORRELATION BETWEEN THE DIAMETER OF AORTA ABDOMEN ANEURYSMA AND THE DIAMETER OF SIMPLE RENAL CYST THROUGH CT ANGIOGRAPHY

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ABSTRACT

Background: Abdominal aortic aneurysm (AAA) is the most common type of aneurysm, and is defined as an abdominal aortic diameter >3 cm and at least 150% of the expected diameter. Several diseases seem to frequently coexist with AAA, including simple renal cysts (SRC). The occurrence of AAA and SRC could be explained by shared risk factors, such as older age, male sex, hypertension and smoking.
Objective: This study aims to determine how strong and how strong is the correlation between the diameter of the abdominal aortic aneurysm and the diameter of a simple renal cyst.
Method: This study used an observational comparative analysis method and a cross-sectional study design with retrospective data collection. Variable data obtained in a numerical-numeric scale.
Results: The results of the measurements on the sample obtained that the mean for measuring the diameter of AAA was 4.804 cm while the average diameter was 2.528 cm. Based on the Shapiro-Wilk test, the diameter of abdominal aortic aneurysms and cysts had a p value = 0.001, which indicated that the data were not normally distributed ($p < 0.05$). While the correlation coefficient (R) of AAA diameter with KGS diameter density is 0.536 and the number of samples is 38, so the minimum R is 0.320.
Conclusion: Based on the Spearman correlation test, there is a very significant correlation between the AAA diameter and the KGS diameter with a moderate closeness of relationship and the direction of the positive relationship, which means that the larger the AAA diameter, the larger the KGS diameter.

Keywords: Abdominal Aortic Aneurysm, Simple Renal Cyst, CT Angiography, diameter.

KORELASI ANTARA DIAMETER ANEURISMA AORTA ABDOMEN DENGAN DIAMETER KISTA GINJAL SEDERHANA MELALUI CT ANGIOGRAFI

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INTISARI

Latar Belakang: Aneurisma aorta abdomen (AAA) adalah jenis aneurisma yang paling umum, dan didefinisikan sebagai diameter aorta abdomen >3 cm dan setidaknya 150% dari *expected diameter*. Beberapa penyakit tampaknya sering hidup berdampingan dengan AAA, termasuk kista ginjal sederhana (KGS). Terjadinya AAA dan KGS dapat dijelaskan oleh faktor risiko bersama, seperti usia yang lebih tua, jenis kelamin laki-laki, hipertensi dan merokok.
Tujuan: untuk mengetahui seberapa kuatkah dan bagaimana arah korelasi antara diameter aneurisma aorta abdomen dengan diameter kista ginjal sederhana.
Metode: Penelitian ini menggunakan metode analisis komparatif observasional dan desain penelitian *cross-sectional* dengan pengambilan data secara retrospektif. Variabel data yang didapat dalam skala numerik-numerik.
Hasil: Hasil pengukuran pada sampel didapatkan rerata untuk pengukuran diameter AAA adalah 4,804 cm sedangkan rerata pengukuran diameter adalah 2,528 cm . Berdasar tes *Shapiro-Wilk*, diameter aneurisma aorta abdomen dan kista mempunyai nilai p = 0,001, yang menunjukkan bahwa data tidak terdistribusi normal (p < 0,05). Sedangkan *correlation coefficient* (R) diameter AAA dengan densitas diameter KGS adalah 0,536 dan jumlah sampel adalah 38, maka R minimal adalah 0,320.
Kesimpulan: Berdasarkan uji korelasi *Spearman*, terdapat korelasi yang sangat signifikan antara diameter AAA dengan diameter KGS dengan keeratan hubungan yang sedang dan arah hubungan positif, yang artinya semakin besar diameter AAA maka semakin besar pula diameter KGS.

Kata kunci: Aneurisma Aorta Abdomen, Kista Ginjal Sederhana, CT Angiografi, diameter