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ECR 2022 / C-15546

Fat Quantification Using Computerized Tomography

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Purpose

The purpose of this research was to quantify the volume of subcutaneous fat, visceral fat and intramuscular fat of patients that underwent computerized tomography examinations and relate this to age, gender, weight, height, waist circumference and body mass index.

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Methods and materials

This was a quantitative and descriptive-correlational research. Data collection was done using a 16 slice computerized tomography, a software for delimitation of volumes, a floor impedance scale able to obtain body fat, and a measuring tape. Participants were chosen by convenience among the patients that have waiting for a computerized tomography examination of the abdomen. To all the participants that agreed to be part of this research, a short sociodemographic survey was applied. This survey contained questions regarding gender and age. To patients that undergone...

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Results

From 88 participants evaluated, 59% were female. Mean age was 63 years with a mean weight of 67 kg, height of 162 cm, waist circumference of 95 cm and body mass index of 25,3 kg/m2. Regarding computerized tomography measurements, subcutaneous fat was 32,7 cm3, visceral fat was 21,8 cm3 and intramuscular fat was 4,6 cm3. Because data from the sample respects normality criteria (using the Kolmogorov-Smirnov with p<0,05), Pearson correlation between weight, height, waist circumference, body mass index and subcutaneous fat, visceral fat and intramuscular...

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Conclusion

The main conclusion of this research was that it is possible to use abdominal computerized tomography and this methodology as an accurate way to measure the abdominal fat of patients.

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Personal information and conflict of interest

R. Malveiro: Nothing to disclose A. F. C. L. Abrantes: Nothing to disclose S. I. Rodrigues: Nothing to disclose L. Ribeiro: Nothing to disclose K. B. Azevedo: Nothing to disclose R. P. P. Almeida: Nothing to disclose N. F. Pinto: Nothing to disclose
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References

Pescatori, L., Savarino, E., Mauri, G., Silvestri, E., Cariati, M., Sardanelli, F., &Sconfienza, L. (2019). Quantification of visceral adipose tissue by computed tomography and magnetic resonance imaging: reproducibility and accuracy. Colégio Brasileiro de Radiologia e Diagnóstico por Imagem, 52, 1-6. Pinho, C., Diniz, A., Arruda, I., Leite, A., Petribu, M., & Rodrigues, I. (2018). Waistcircumference measurement sites and their association with visceral and subcutaneous fat and cardiometabolic abnormalities. Arch Endocrinol Metab, 62, 416-423. Srikumar T, Siegel EM, Gu Y, Balagurunathan Y, Garcia AL, Chen YA,...
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Fig 1: *Visceral Fat delimitation*

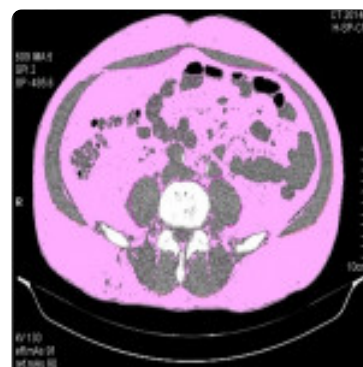**Fig 2:** *Visceral Fat and Intramuscular Fat delimitation*

Fig 3: *Total Fat delimitation*

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