Determinants of volumetric breast density in Chilean premenopausal women

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 Purpose: High mammographic breast density (BD) is a strong risk factor of breast cancer; however, little is known in women under 40 years of age. Recently, dual-energy X-ray Absorptiometry (DXA) has been developed as a low-dose method to measure BD in young populations. Thus, our aims were to describe BD in relation to risk factors in Chilean women under 40 years old and to explore the equivalence of DXA to mammography for the measurement of BD. Methods: We selected 192 premenopausal Chilean female participants of the DERCAM study for whom we have anthropometric, sociodemographic, and gyneco-obstetric data. The subjects received both digital mammograms (Hologic) and breast DXA scans (GE iDXA). Mammographic BD was estimated using a fully automated commercial method (VOLPARA®) and BI-RADS. Breast DXA scans were performed using a standardized protocol and the % fibroglandular volume (%FGV) was estimated considering a two-compartment model