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LOCAL EXPERIENCE USING THE ULTRASOUND
VISUALIZATION SCORE IN HEPATOCELLULAR
CARCINOMA SCREENING

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Introduction and Objectives: The accuracy of ultrasound screening for hepatocellular carcinoma (HCC) depends on visualization quality. The extent to which clinical and technical variables impact image quality remains unclear. This study aimed to assess our hospital's experience implementing a visualization score in screening ultrasounds.

Materials and Methods: Between August 2020 and December 2024, 2,598 screening ultrasounds were performed in 1,256 patients by 6 certified radiologists at Hospital Sótero del Río in Santiago, Chile. Clinical variables, technical artifacts, visualization score, and LIRADS were recorded. Frequencies were calculated, detection rates estimated, and association tests were conducted.

Results: The distribution of ultrasounds by year and visualization score is shown in Table and Figure 1. A total of 1,447 (55.7%) examinations were performed in women and 1,151 (44.3%) in men; mean age was 62.7 years. During the study period, 28 HCC were detected (detection rate: 10.8 per 1,000 ultrasounds; 22.3 per 1,000 patients screened; number needed to detect: 45 patients). Visualization score was reported in 1,858 ultrasounds. Score A was most frequent (66.95%), while suboptimal visualization (score B/C) occurred in 33.05%. Male sex (OR 1.46; 95% CI 1.20–1.77; p < 0.001) and older age (p < 0.001) were associated with score B/C. Technical artifacts such as meteorism, acoustic shadowing, ascites, and bowel interposition were all associated with suboptimal visualization (p < 0.001).

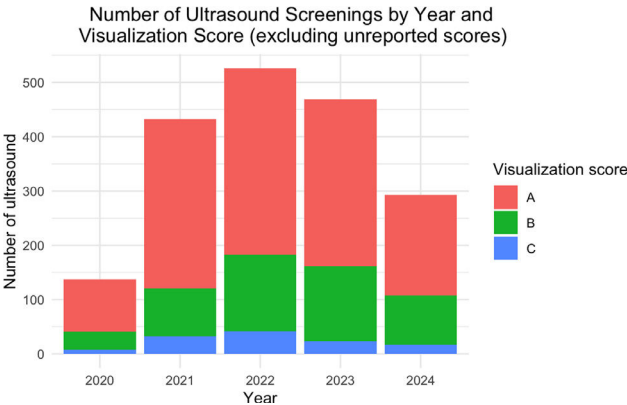
Conclusions: The screening program identified one HCC for every 45 patients screened. One-third of ultrasounds showed suboptimal visualization, associated with older age, male sex, and technical artifacts. These findings underscore the importance of optimizing technical conditions during screening.

Conflict of interest: None

Total ultrasounds by year and visualization score (table)

	2020	2021	2022	2023	2024	Total by score
A	96	312	343	308	185	1244
B	33	88	141	138	91	491
C	8	33	42	23	17	123
Score not reported	20	95	175	184	266	740
Total by year	157	528	701	653	559	2598

Total ultrasounds by year and visualization score (excluding unreported scores)



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ENZIMATICALLY MODIFIED QUERCETIN PREVENTS
FIBROSIS PROGRESSION IN CHEMICALLY INDUCED
LIVER CANCER IN WISTAR RATS

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Introduction and Objectives: The hepatoprotective, antioxidant, and anticancer properties of quercetin cannot easily be used for therapeutic purposes, because of its poor aqueous solubility, rapid