

Supplementary Material 1

Complete Univariate Analysis of Factors Associated with Disease Patterns among CT-Confirmed Cystic Echinococcosis Cases (N = 200)

Table S1. Univariate Associations Between Demographic and Environmental Exposures and Multiple Cysts (2–3 or ≥4 vs Single Cyst) (N = 200)

Predictor	Exposed n/N (%)	Unexposed n/N (%)	OR (95% CI)	p-value
Female sex (vs male)	78/106 (73.6)	73/94 (77.7)	0.80 (0.42–1.53)	0.516
Rural residence (vs urban)	92/127 (72.4)	59/73 (80.8)	0.62 (0.31–1.26)	0.232
Dog ownership (yes vs no)	72/97 (74.2)	79/103 (76.7)	0.87 (0.46–1.67)	0.743
Sheep farming (yes vs no/other)	54/78 (69.2)	97/122 (79.5)	0.58 (0.30–1.11)	0.129
Unsafe water source (well/other vs tap)	89/116 (76.7)	62/84 (73.8)	1.17 (0.61–2.24)	0.739
Family history of hydatid disease (yes vs no)	61/73 (83.6)	90/127 (70.9)	2.09 (1.01–4.33)	0.060

Table S2. Univariate Associations Between Demographic and Environmental Exposures and Extra-Hepatic Disease (vs Isolated Liver Involvement) (N = 200)

Predictor	Exposed n/N (%)	Unexposed n/N (%)	OR (95% CI)	p-value
Female sex (vs male)	31/106 (29.2)	34/94 (36.2)	0.73 (0.40–1.32)	0.364
Rural residence (vs urban)	44/127 (34.6)	21/73 (28.8)	1.31 (0.70–2.45)	0.435
Dog ownership (yes vs no)	32/97 (33.0)	33/103 (32.0)	1.04 (0.58–1.89)	1.000
Sheep farming (yes vs no/other)	18/78 (23.1)	47/122 (38.5)	0.48 (0.25–0.91)	0.030*
Unsafe water source (well/other vs tap)	35/116 (30.2)	30/84 (35.7)	0.78 (0.43–1.41)	0.446
Family history of hydatid disease (yes vs no)	27/73 (37.0)	38/127 (29.9)	1.37 (0.75–2.53)	0.348

Table S3. Univariate Associations Between Demographic and Environmental Exposures and Pulmonary Involvement (Yes vs No) (N = 200)

Predictor	Exposed n/N (%)	Unexposed n/N (%)	OR (95% CI)	p-value
Female sex (vs male)	26/106 (24.5)	29/94 (30.9)	0.73 (0.39–1.36)	0.344
Rural residence (vs urban)	39/127 (30.7)	16/73 (21.9)	1.58 (0.81–3.09)	0.193
Dog ownership (yes vs no)	30/97 (30.9)	25/103 (24.3)	1.40 (0.75–2.61)	0.343
Sheep farming (yes vs no/other)	15/78 (19.2)	40/122 (32.8)	0.49 (0.25–0.96)	0.051
Unsafe water source (well/other vs tap)	28/116 (24.1)	27/84 (32.1)	0.67 (0.36–1.25)	0.261
Family history of hydatid disease (yes vs no)	20/73 (27.4)	35/127 (27.6)	0.99 (0.52–1.89)	1.000

OR = odds ratio; CI = confidence interval.

Sheep farming was defined as sheep alone, sheep with goats, or mixed livestock including sheep, compared with no livestock or non-sheep livestock only.

Unsafe water source was defined as well water or other non-tap sources, compared with tap water.

Extra-hepatic disease was defined as any organ involvement outside the liver.

Pulmonary involvement included isolated lung disease and combined liver–lung disease.

Reference categories were male sex, urban residence, no dog ownership, no or non-sheep livestock, tap water source, and no family history of hydatid disease.

Statistical significance was defined as $p < 0.05$. * $p < 0.05$.

All analyses were performed using the chi-square test or Fisher's exact test when expected cell counts were < 5 .

Data source: Retrospective medical record review, Radiology Department, University of Mosul, September 2024 – August 2025.

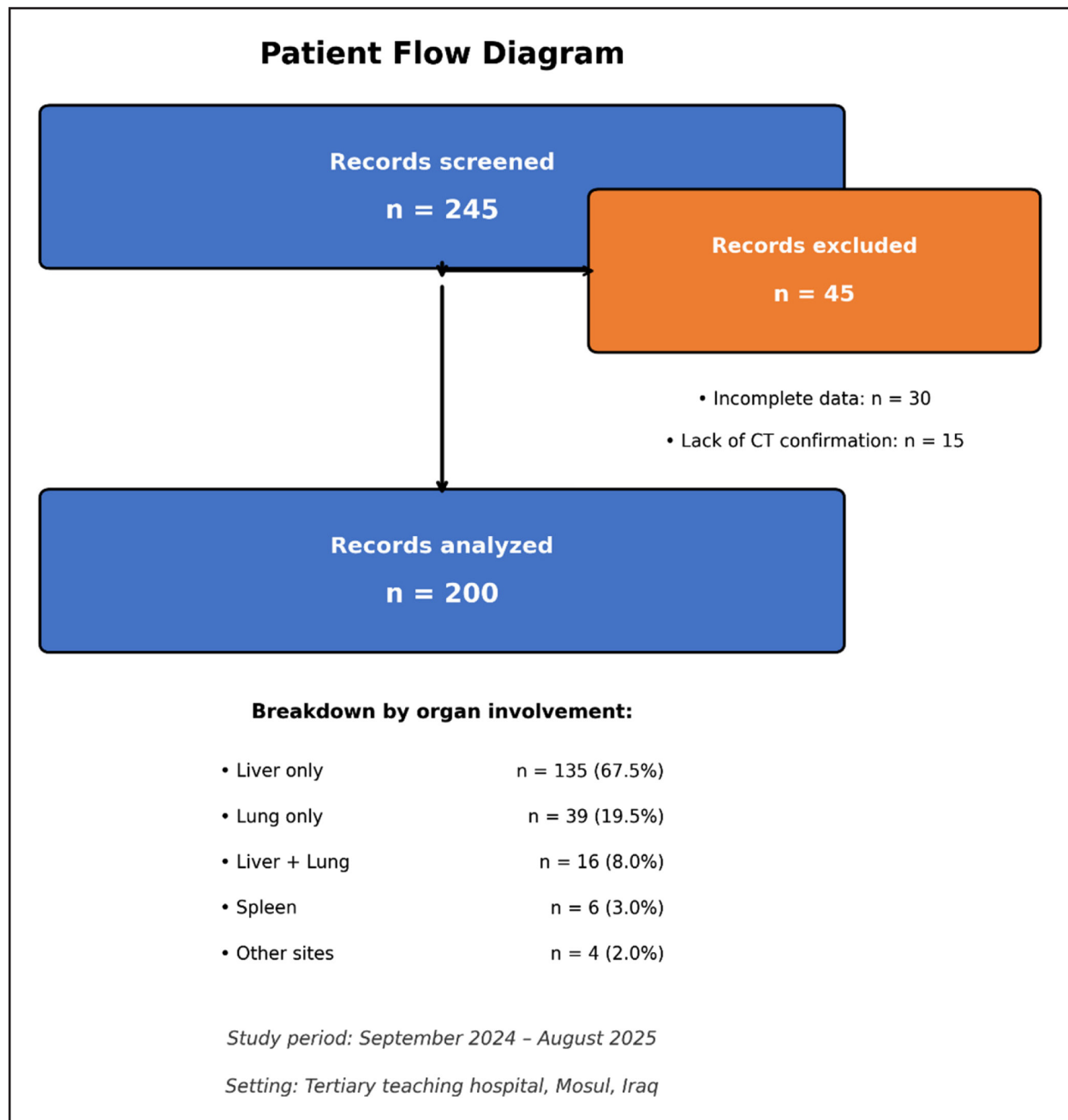


Figure S1. Patient flow diagram for the retrospective study of CT-confirmed cystic echinococcosis cases in Nineveh Governorate, Iraq.