Appendix A:

Table A1. The search criteria used for the screening of the article using MEDLINE OVID on February 20, 2022

1	(liver or hepatopancreatobiliary or live* or hepatic or hepat*).mp.	1869919
2	limit 1 to yr="2012 -Current"	703270
3	(liver* and (cancer* or tumo?r* or malignan* or carcinoma)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	299154
4	("artificial intelligence" or "artificial* intelligen*").mp.	42121
5	exp Machine Learning/	40193
6	"neural networks (computer)".mp.	36991
7	1 and 3	299154
8	4 or 5 or 6	105123
9	2 and 7 and 8	570
10	(imag* or "3?D visual").mp.	2616662
11	9 and 10	341

Table A2. The search criteria used for the screening of the article using PubMed on February 20, 2022

#14	Search: **(#11) AND (#12)** Filters: **in the last 10 years**	189
#13	Search: **(#11) AND (#12)**	189
#12	Search: **(imag*[Title/Abstract] OR "3?D visual"[Title/Abstract])**	1,392,990
#11	Search: **(#9) AND (#8)** Filters: **in the last 10 years**	349
#10	Search: **(#9) AND (#8)**	349
#9	Search: **((#5) OR (#6)) OR (#7)**	63,862
#8	Search: **(#2) AND (#4)**	84,738
#7	Search: **neural networks (computer[Title/Abstract])** "neural networks computer"[Title/Abstract]	98
#6	Search: **Machine Learning[MeSH Terms]**	42,035
#5	Search: **("artificial intelligence"[Title/Abstract] OR "artificial* intelligen*"[Title/Abstract])**	21,430
#4	Search: **(liver*[Title/Abstract] AND (cancer*[Title/Abstract] OR tumo?r*[Title/Abstract] OR malignan*[Title/Abstract] OR carcinoma[Title/Abstract]))** Filters: **in the last 10 years**	84,738
#2	Search: **(liver[Title/Abstract] OR hepatopancreatobiliary[Title/Abstract] OR live*[Title/Abstract] OR hepatic[Title/Abstract] OR hepat*[Title/Abstract])** Filters: **in the last 10 years**	664,919

Table A3. Study Quality Assessment for selected studies based on MINORS criteria

Selected Study	1	2	3	4	5	6	7	8	9	10	11	12
Le et. al., 2016 (11)	2	2	2	2	0	0	0	2	-	-	-	-
Wang et. al., 2021 (12)	2	2	2	2	2	0	0	1	-	-	-	-
Kim et. al., 2020 (13)	2	2	0	2	0	0	0	2	-	-	-	-
Aatresh et. al., 2021 (14)	2	2	2	2	0	0	0	0	2	2	2	0
Bousabarah et. al.,2021 (15)	2	2	2	2	0	0	0	0	-	-	-	-
Kim et. al., 2021 (16)	2	2	2	2	0	2	0	0	-	-	-	-
Liao et. al., 2020 (17)	2	2	2	2	0	0	0	2	-	-	-	-
Song et. al., 2021(18)	2	2	2	2	0	1	1	1	-	-	-	-
Thomaz et. al., 2018 (19)	2	2	2	2	0	0	0	0	-	-	-	-
Vivanti et. al., 2018 (20)	2	2	2	2	0	0	0	0	-	-	-	-
Yamada et. al., 2019 (21)	2	2	2	2	1	0	0	1	-	-	-	-
Yang et. al., 2021 (22)	2	2	2	2	0	0	0	2	-	-	-	-
Yang et. al., 2021 (23)	2	2	2	2	2	0	0	1	-	-	-	-
Yang et. al., 2019 (24)	2	2	2	2	2	0	0	0	-	-	-	-
Zhen et. al., 2020 (25)	2	2	2	2	2	2	0	2	-	-	-	-

Zhou et. al, 2019 (26)	2	2	2	2	0	0	0	1	-	-	-	-
Abajian et. al., 2018 (27)	2	2	2	2	0	2	0	0	-	-	-	-
Gu et. al., 2021 (28)	2	2	2	2	0	0	0	0	-	-	-	-
Liu et. al., 2021 (29)	2	2	2	2	0	0	0	2	-	-	-	-
Liu et. al., 2021 (30)	2	2	2	2	0	0	0	0	-	-	-	-
Liu et. al. 2020 (31)	2	2	2	2	2	2	0	1	-	-	-	-
Li et. al., 2022 (32)	2	2	2	2	2	2	0	2	-	-	-	-
Mao et. al., 2020 (33)	2	2	2	2	1	0	0	2	-	-	-	-
Peng et. al., 2020 (34)	2	2	2	2	2	0	0	2	-	-	-	-
Ren et. al., 2021 (35)	2	2	2	2	2	0	0	2	-	-	-	-
Saillard et.al., 2020 (36)	2	2	2	2	0	0	0	0	-	-	-	-
Wei et. al., 2021 (37)	2	2	2	2	1	0	0	0	-	-	-	-
Zhang et. al., 2021(38)	2	2	2	2	0	0	0	1	-	-	-	-
Zhang et. al., 2021(39)	2	2	2	2	1	0	0	2	-	-	-	-
Bai et. al., 2021(40)	2	2	2	2	0	2	2	1	-	-	-	-
Guo et. al., 201(41)	2	2	2	2	1	2	2	2	-	-	-	-
Ji et. al., 2019 (42)	2	2	2	2	0	2	2	1	-	-	-	-

Mai et. al., 2021(43)	2	2	2	2	0	2	2	1	-	-	-	-
Saito et. al., 2021(44)	2	2	2	2	1	2	2	1	-	-	-	-

0 represents 'not reported', 1 represents 'reported but inadequate' and 2 represents 'reported and adequate';1: A clearly stated aim; 2:Inclusion of consecutive patients; 3:Prospective collection of data; 4:Endpoints appropriate to the aim of study; 5:Unbiased assessment of the study endpoint; 6:Follow-up period appropriate to the aim of study; 7:Loss to follow up less than 5%; 8:Prospective calculation of study size; 9:An adequate control group; 10:Contemporary groups; 11:Baseline equivalence of groups; 12:Adequate statistical analysis.