**Search strategy**

1. **The search strategy for China Biology Medicine Disc (CBM) database**

|  |  |  |
| --- | --- | --- |
| No. | Query | Results |
| #10 | (#9) AND (#6) AND (#3) | [112](javascript:historyLink('(#9)%20AND%20(#6)%20AND%20(#3)')) |
| #9 | (#8) OR (#7) | [683](javascript:historyLink('(#8)%20OR%20(#7)')) |
| #8 | "肝门空肠吻合术"[常用字段:智能] OR "葛西手术"[常用字段:智能] OR "Kasai手术"[常用字段:智能] OR "Kasai术"[常用字段:智能] OR "肝门肠吻合术"[常用字段:智能] | [405](javascript:historyLink('%22%E8%82%9D%E9%97%A8%E7%A9%BA%E8%82%A0%E5%90%BB%E5%90%88%E6%9C%AF%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]%20OR%20%22%E8%91%9B%E8%A5%BF%E6%89%8B%E6%9C%AF%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]%20OR%20%22Kasai%E6%89%8B%E6%9C%AF%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]%20OR%20%22Kasai%E6%9C%AF%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]%20OR%20%22%E8%82%9D%E9%97%A8%E8%82%A0%E5%90%BB%E5%90%88%E6%9C%AF%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]')) |
| #7 | "胆管肠吻合术, 肝"[不加权:扩展] | [287](javascript:historyLink('%22%E8%83%86%E7%AE%A1%E8%82%A0%E5%90%BB%E5%90%88%E6%9C%AF,%20%E8%82%9D%22[%E4%B8%8D%E5%8A%A0%E6%9D%83:%E6%89%A9%E5%B1%95]')) |
| #6 | (#5) OR (#4) | [22427](javascript:historyLink('(#5)%20OR%20(#4)')) |
| #5 | "肝脏移植"[常用字段:智能] | [22427](javascript:historyLink('%22%E8%82%9D%E8%84%8F%E7%A7%BB%E6%A4%8D%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]')) |
| #4 | "肝移植"[不加权:扩展] | [17216](javascript:historyLink('%22%E8%82%9D%E7%A7%BB%E6%A4%8D%22[%E4%B8%8D%E5%8A%A0%E6%9D%83:%E6%89%A9%E5%B1%95]')) |
| #3 | (#2) OR (#1) | [1282](javascript:historyLink('(#2)%20OR%20(#1)')) |
| #2 | "胆管闭锁"[常用字段:智能] | [78](javascript:historyLink('%22%E8%83%86%E7%AE%A1%E9%97%AD%E9%94%81%22[%E5%B8%B8%E7%94%A8%E5%AD%97%E6%AE%B5:%E6%99%BA%E8%83%BD]')) |
| #1 | "胆道闭锁"[不加权:扩展] | [1245](javascript:historyLink('%22%E8%83%86%E9%81%93%E9%97%AD%E9%94%81%22[%E4%B8%8D%E5%8A%A0%E6%9D%83:%E6%89%A9%E5%B1%95]')) |

1. **The search strategy for Embase database**

|  |  |  |
| --- | --- | --- |
| No. | Query | Results |
| #10 | #3 AND #6 AND #9 | 1141 |
| #9 | #7 OR #8 | 142161 |
| #8 | 'grafting, liver':ab,ti OR 'liver grafting':ab,ti OR 'transplantation, liver':ab,ti OR 'liver transplantations':ab,ti OR 'liver transplant':ab,ti OR 'liver transplants':ab,ti OR 'transplant, liver':ab,ti OR 'hepatic transplantation':ab,ti OR 'hepatic transplantations':ab,ti OR 'transplantation, hepatic':ab,ti | 48178 |
| #7 | 'liver transplantation'/exp | 138537 |
| #6 | #4 OR #5 | 2474 |
| #5 | 'hepatic portoenterostomy':ab,ti OR 'hepatic portoenterostomies':ab,ti OR 'portoenterostomies, hepatic':ab,ti OR 'hepatoportoenterostomy':ab,ti OR 'hepatoportoenterostomies':ab,ti OR 'kasai procedure':ab,ti | 863 |
| #4 | 'portoenterostomy'/exp | 2256 |
| #3 | #1 OR #2 | 9243 |
| #2 | 'atresia, biliary':ab,ti OR 'intrahepatic biliary atresia':ab,ti OR 'atresia, intrahepatic biliary':ab,ti OR 'biliary atresia, intrahepatic':ab,ti OR 'biliary atresia, extrahepatic':ab,ti OR 'atresia, extrahepatic biliary':ab,ti OR 'extrahepatic biliary atresia':ab,ti OR 'idiopathic extrahepatic biliary atresia':ab,ti OR 'familial extrahepatic biliary atresia':ab,ti | 702 |
| #1 | 'bile duct atresia'/exp | 9119 |

1. **The search strategy for Cochrane database**

|  |  |  |
| --- | --- | --- |
| No. | Query | Results |
| #1 | MeSH descriptor:[BiliaryAtresia]explode all trees | 54 |
| #2 | MeSH descriptor:[Portoenterostomy, Hepatic]explode all trees | 20 |
| #3 | MeSH descriptor:[Liver Transplantation]explode all trees | 1762 |
| #4 | (Atresia,Biliary):ti,ab,kw OR (Intrahepatic Biliary Atresia):ti,ab,kw OR (Atresia, Intrahepatic Biliary):ti,ab,kw OR (Biliary Atresia, Intrahepatic):ti,ab,kw OR (Biliary Atresia, Extrahepatic):ti,ab,kw OR (Atresia, Extrahepatic Biliary):ti,ab,kw OR (Extrahepatic Biliary Atresia):ti,ab,kw OR (Idiopathic Extrahepatic Biliary Atresia):ti,ab,kw OR (Familial Extrahepatic Biliary Atresia):ti,ab,kw | 142 |
| #5 | (Hepatic Portoenterostomy):ti,ab,kw OR (Hepatic Portoenterostomies):ti,ab,kw OR (Portoenterostomies,Hepatic):ti,ab,kw OR (Hepatoportoenterostomy):ti,ab,kw OR (Hepatoportoenterostomies):ti,ab,kw OR (Kasai Procedure):ti,ab,kw | 52 |
| #6 | (Grafting,Liver):ti,ab,kw OR (Liver Grafting):ti,ab,kw OR (Transplantation,Liver):ti,ab,kw OR (Liver Transplantations):ti,ab,kw OR (Liver Transplant):ti,ab,kw OR (Liver Transplants):ti,ab,kw OR (Transplant,Liver):ti,ab,kw OR (Hepatic Transplantation):ti,ab,kw OR (Hepatic Transplantations):ti,ab,kw OR (Transplantation,Hepatic):ti,ab,kw | 7146 |
| #7 | #1 OR #4 | 142 |
| #8 | #2 OR #5 | 52 |
| #9 | #3 OR #6 | 7146 |
| #10 | #7 AND #8 AND #9 | 22 |

**4. The search strategy for Web of Science database**

|  |  |  |
| --- | --- | --- |
| No. | Query | Results |
| #1 | TS=(Biliary Atresia OR Atresia, Biliary OR Intrahepatic Biliary Atresia OR Atresia, Intrahepatic Biliary OR Biliary Atresia, Intrahepatic OR Biliary Atresia, Extrahepatic OR Atresia, Extrahepatic Biliary OR Extrahepatic Biliary Atresia OR Idiopathic Extrahepatic Biliary Atresia OR Familial Extrahepatic Biliary Atresia) | 4554 |
| #2 | TS=(Portoenterostomy, Hepatic OR Hepatic Portoenterostomy OR Hepatic Portoenterostomies OR Portoenterostomies, Hepatic OR Hepatoportoenterostomy OR Hepatoportoenterostomies OR Kasai Procedure) | 710 |
| #3 | TS=(Liver Transplantation OR Grafting, Liver OR Liver Grafting OR Transplantation, Liver OR Liver Transplantations OR Liver Transplant OR Liver Transplants OR Transplant, Liver OR Hepatic Transplantation OR Hepatic Transplantations OR Transplantation, Hepatic) | 127432 |
| #4 | #3 AND #2 AND #1 | 404 |

**5. The search strategy for China National Knowledge Infrastructure (CNKI) database**

( ( ( ( 主题%='胆道闭锁' or 题名%='胆道闭锁' ) OR ( 主题%='胆管闭锁' or 题名%='胆管闭锁' ) ) AND ( ( 主题%='肝移植' or 题名%='肝移植' ) OR ( 主题%='肝脏移植' or 题名%='肝脏移植' ) ) ) AND ( ( ( ( ( 主题%='肝门空肠吻合术' or 题名%='肝门空肠吻合术' ) OR ( 主题%='葛西手术' or 题名%='葛西手术' ) ) OR ( 主题%='Kasai手术' or 题名%='Kasai手术' ) ) OR ( 主题%='Kasai术' or 题名%='Kasai术' ) ) OR ( 主题%='肝门肠吻合术' or 题名%='肝门肠吻合术' ) ) )

**6. The search strategy for Wanfang database**

主题:(胆道闭锁 or 胆管闭锁) and 主题:(肝移植 or 肝脏移植) and 主题:(肝门空肠吻合术 or 葛西手术 or Kasai手术 or Kasai术 or 肝门肠吻合术)

**7. The search strategy for Pubmed database**

(((Biliary Atresia[MeSH Terms]) OR (((((((((Atresia, Biliary[Title/Abstract]) OR (Intrahepatic Biliary Atresia[Title/Abstract])) OR (Atresia, Intrahepatic Biliary[Title/Abstract])) OR (Biliary Atresia, Intrahepatic[Title/Abstract])) OR (Biliary Atresia, Extrahepatic[Title/Abstract])) OR (Atresia, Extrahepatic Biliary[Title/Abstract])) OR (Extrahepatic Biliary Atresia[Title/Abstract])) OR (Idiopathic Extrahepatic Biliary Atresia[Title/Abstract])) OR (Familial Extrahepatic Biliary Atresia[Title/Abstract]))) AND ((Portoenterostomy, Hepatic[MeSH Terms]) OR ((((((Hepatic Portoenterostomy[Title/Abstract]) OR (Hepatic Portoenterostomies[Title/Abstract])) OR (Portoenterostomies, Hepatic[Title/Abstract])) OR (Hepatoportoenterostomy[Title/Abstract])) OR (Hepatoportoenterostomies[Title/Abstract])) OR (Kasai Procedure[Title/Abstract])))) AND ((Liver Transplantation[MeSH Terms]) OR ((((((((((Grafting, Liver[Title/Abstract]) OR (Liver Grafting[Title/Abstract])) OR (Transplantation, Liver[Title/Abstract])) OR (Liver Transplantations[Title/Abstract])) OR (Liver Transplant[Title/Abstract])) OR (Liver Transplants[Title/Abstract])) OR (Transplant, Liver[Title/Abstract])) OR (Hepatic Transplantation[Title/Abstract])) OR (Hepatic Transplantations[Title/Abstract])) OR (Transplantation, Hepatic[Title/Abstract]))

**Raw data**

**Age at surgery**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Sandler | 1997 | Canada | 49 | 27.6 | 4.8 | 8 | 8.4 | 2.4 |
| Visser | 2004 | USA | 42 | 32 | 55 | 13 | 12 | 8 |
| Tiao | 2008 | China | 60 | 66 | 75.6 | 46 | 19.2 | 13.2 |
| Guo | 2010 | China | 9 | 10.27 | 4.32 | 13 | 6.89 | 3.12 |
| Alexopoulos | 2012 | USA | 112 | 20.3 | 31.1 | 22 | 11.1 | 4.97 |
| Wang | 2013 | China | 10 | 8.4 | 3.4 | 18 | 7 | 4 |
| Neto | 2015 | Brazil | 181 | 22.95 | 28.25 | 135 | 10.8 | 5 |
| Chung | 2015 | China | 74 | 54.96 | 43.72 | 7 | 10.69 | 4.03 |
| Safwan | 2016 | India | 33 | 26.13 | 26.93 | 25 | 15.22 | 11.2 |
| Mohan | 2016 | India | 38 | 48.39 | 35.35 | 20 | 11.82 | 5.35 |
| Yang | 2018 | China | 58 | 14.6 | 23.87 | 45 | 7.52 | 3.38 |
| Li | 2019 | China | 89 | 15.7 | 16.1 | 61 | 8.4 | 5.2 |
| Chang | 2021 | China | 38 | 31.43 | 51.39 | 36 | 17.19 | 23.86 |
| Tambucci | 2021 | Belgium | 296 | 16.04 | 11.8 | 97 | 11.26 | 5.87 |
| Zhang | 2022 | China | 542 | 9.38 | 4.46 | 338 | 6.54 | 1.49 |
| Lemoine | 2022 | USA | 97 | 10.38 | 4.8 | 14 | 9.57 | 2.76 |
| Yoeli | 2022 | USA | 2340 | 23.63 | 44.9 | 436 | 6 | 11.52 |

**Weight at surgery**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Sandler | 1997 | Canada | 49 | 11.6 | 1.2 | 8 | 6.9 | 0.4 |
| Visser | 2004 | USA | 42 | 13.2 | 15 | 13 | 8 | 2.1 |
| Guo | 2010 | China | 9 | 7.4 | 2.6 | 13 | 5.4 | 1.4 |
| Alexopoulos | 2012 | USA | 112 | 10.06 | 8.23 | 22 | 7.3 | 2 |
| Wang | 2013 | China | 10 | 7.1 | 0.8 | 18 | 7.1 | 1.7 |
| Neto | 2015 | Brazil | 209 | 9.98 | 6.05 | 138 | 7.4 | 1.7 |
| Chung | 2015 | China | 74 | 17.39 | 12.34 | 7 | 7.12 | 1.28 |
| Safwan | 2016 | India | 33 | 10.7 | 5.2 | 25 | 7.2 | 2.4 |
| Mohan | 2016 | India | 38 | 15.23 | 8.61 | 20 | 11.82 | 5.35 |
| Yang | 2018 | China | 58 | 9.4 | 4.1 | 45 | 7.5 | 3.4 |
| Chang | 2021 | China | 38 | 12.8 | 5.2 | 36 | 10.2 | 6.6 |
| Zhang | 2022 | China | 542 | 7.41 | 1.78 | 338 | 6.93 | 0.89 |
| Yoeli | 2022 | USA | 2340 | 12.57 | 11.85 | 436 | 8.26 | 2.97 |

**Pediatric end-stage liver disease (PELD) score**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Visser | 2004 | USA | 42 | 10 | 9 | 13 | 13.7 | 6.4 |
| Guo | 2010 | China | 9 | 12.3 | 6.8 | 13 | 19.8 | 8.5 |
| Alexopoulos | 2012 | USA | 112 | 8.88 | 9.13 | 22 | 13.6 | 6 |
| Wang | 2013 | China | 10 | 11.9 | 9.2 | 18 | 16 | 7.4 |
| Neto | 2015 | Brazil | 181 | 15.48 | 8.56 | 134 | 19.2 | 7.6 |
| Chung | 2015 | China | 74 | 17 | 4.64 | 7 | 22.88 | 4.03 |
| Safwan | 2016 | India | 33 | 12.1 | 9.14 | 25 | 16.6 | 5.85 |
| Yang | 2018 | China | 58 | 12.8 | 10.2 | 45 | 19.3 | 8.8 |
| Li | 2019 | China | 89 | 15.51 | 7.92 | 61 | 18.44 | 6.97 |
| Chang | 2021 | China | 38 | 12.5 | 9.6 | 36 | 20.8 | 15.4 |
| Tambucci | 2021 | Belgium | 296 | 13.64 | 10.21 | 97 | 18.39 | 7.6 |
| Zhang | 2022 | China | 542 | 14.95 | 11.15 | 338 | 19.82 | 8.56 |
| Lemoine | 2022 | USA | 97 | 22 | 11 | 14 | 27 | 8 |
| Yoeli | 2022 | USA | 2340 | 15.61 | 11.93 | 436 | 19.01 | 10.72 |

**Operation time**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Sandler | 1997 | Canada | 49 | 593.9 | 29.3 | 8 | 476.8 | 53.3 |
| Visser | 2004 | USA | 42 | 400 | 110 | 13 | 400 | 110 |
| Guo | 2010 | China | 9 | 460.22 | 75.71 | 13 | 513 | 118.86 |
| Alexopoulos | 2012 | USA | 112 | 394.13 | 108.81 | 22 | 408 | 120 |
| Wang | 2013 | China | 10 | 534 | 150 | 18 | 558 | 252 |
| Chung | 2015 | China | 74 | 782.74 | 133.87 | 7 | 572.26 | 124.59 |
| Safwan | 2016 | India | 33 | 525.4 | 125.8 | 25 | 467.5 | 88.9 |
| Yang | 2018 | China | 58 | 384.3 | 49.6 | 25 | 379 | 48.5 |
| Li | 2019 | China | 89 | 552 | 102 | 61 | 540 | 102 |
| Li | 2022 | China | 51 | 446 | 86 | 54 | 464 | 86 |
| Zhang | 2022 | China | 542 | 495.5 | 98.1 | 338 | 476.6 | 94 |
| Lemoine | 2022 | USA | 97 | 443.9 | 98.6 | 14 | 423.1 | 70 |

**Intraoperative blood loss**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Visser | 2004 | USA | 42 | 1500 | 3200 | 13 | 500 | 200 |
| Guo | 2010 | China | 9 | 375.27 | 250.98 | 13 | 223.76 | 179.33 |
| Wang | 2013 | China | 10 | 197 | 132.8 | 18 | 208.6 | 148.5 |
| Chung | 2015 | China | 74 | 830.32 | 376.52 | 7 | 467.44 | 153.9 |
| Safwan | 2016 | India | 33 | 443.9 | 169 | 25 | 360.4 | 180.6 |
| Li | 2019 | China | 89 | 335.6 | 219.3 | 61 | 321.1 | 193.3 |
| Chang | 2021 | China | 38 | 320.8 | 180.6 | 36 | 295.5 | 155 |

**Length of intensive care unit (ICU) stay**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Wang | 2013 | China | 10 | 6.57 | 1.55 | 18 | 7.52 | 1.84 |
| Neto | 2015 | Brazil | 179 | 4.37 | 6.65 | 126 | 4.35 | 3.75 |
| Safwan | 2016 | India | 33 | 11.6 | 10.1 | 25 | 6.5 | 1.78 |
| Li | 2019 | China | 89 | 3.56 | 0.41 | 61 | 3.75 | 0.32 |
| Zhang | 2022 | China | 542 | 2.82 | 1.11 | 338 | 3 | 1.49 |
| Lemoine | 2022 | USA | 97 | 14.2 | 25.6 | 14 | 14.2 | 10.5 |

**Length of hospital stay**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Alexopoulos | 2012 | USA | 112 | 17.38 | 12.48 | 22 | 22 | 14 |
| Wang | 2013 | China | 10 | 29 | 2 | 18 | 27 | 4 |
| Neto | 2015 | Brazil | 157 | 10.74 | 6.78 | 138 | 11.09 | 1.92 |
| Chung | 2015 | China | 74 | 46.63 | 19.45 | 7 | 65.9 | 32.98 |
| Safwan | 2016 | India | 33 | 21.69 | 11.78 | 25 | 23.5 | 7.38 |
| Yang | 2018 | China | 58 | 13.5 | 1.1 | 45 | 13.6 | 1 |
| Li | 2019 | China | 89 | 28.67 | 4.58 | 61 | 30.08 | 7.33 |
| Zhang | 2022 | China | 542 | 22.7 | 8.92 | 338 | 22.05 | 9.68 |
| Lemoine | 2022 | USA | 97 | 31.8 | 36 | 14 | 32.8 | 15.2 |

**Intraoperative blood transfusion**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | nkasai | meankasai | sdkasai | nwithoutkasai | meanwithoutkasai | sdwithoutkasai |
| Guo | 2010 | China | 9 | 143.92 | 117.12 | 13 | 261.63 | 179.33 |
| Safwan | 2016 | India | 33 | 506.93 | 420.82 | 25 | 259.22 | 94.19 |
| Chang | 2021 | China | 38 | 750.8 | 320.5 | 36 | 698.5 | 280.7 |
| Zhang | 2022 | China | 542 | 329.93 | 148.66 | 338 | 329.88 | 148.9 |

**1-year survival**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Death with Kasai | Alive with Kasai | Death without Kasai | Alive without Kasai | Pop with Kasai | Pop without Kasai |
| Meister | 1993 | USA | 3 | 29 | 0 | 7 | 32 | 7 |
| Sandler | 1997 | Canada | 14 | 35 | 2 | 6 | 49 | 8 |
| Diem | 2003 | Belgium | 36 | 249 | 4 | 39 | 285 | 43 |
| Alexopoulos | 2012 | USA | 14 | 98 | 0 | 22 | 112 | 22 |
| Wang | 2013 | China | 2 | 8 | 4 | 14 | 10 | 18 |
| Celik | 2014 | Turkey | 4 | 24 | 3 | 9 | 28 | 12 |
| Neto | 2015 | Brazil | 21 | 188 | 10 | 128 | 209 | 138 |
| Li | 2019 | China | 3 | 86 | 2 | 59 | 89 | 61 |
| Chang | 2021 | China | 2 | 36 | 3 | 33 | 38 | 36 |
| Tambucci | 2021 | Belgium | 9 | 287 | 3 | 94 | 296 | 97 |
| Li | 2022 | China | 3 | 48 | 4 | 50 | 51 | 54 |
| Zhang | 2022 | China | 25 | 517 | 15 | 323 | 542 | 338 |
| Lemoine | 2022 | USA | 6 | 91 | 0 | 14 | 97 | 14 |
| Yoeli | 2022 | USA | 86 | 2254 | 17 | 419 | 2340 | 436 |

**3-year survival**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Death with Kasai | Alive with Kasai | Death without Kasai | Alive without Kasai | Pop with Kasai | Pop without Kasai |
| Celik | 2014 | Turkey | 4 | 24 | 3 | 9 | 28 | 12 |
| Mohan | 2016 | India | 3 | 35 | 2 | 18 | 38 | 20 |
| Chang | 2021 | China | 4 | 34 | 5 | 31 | 38 | 36 |
| Li | 2022 | China | 8 | 43 | 7 | 47 | 51 | 54 |
| Lemoine | 2022 | USA | 9 | 88 | 1 | 13 | 97 | 14 |
| Yoeli | 2022 | USA | 108 | 2232 | 31 | 405 | 2340 | 436 |

**5-year survival**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Death with Kasai | Alive with Kasai | Death without Kasai | Alive without Kasai | Pop with Kasai | Pop without Kasai |
| Sandler | 1997 | Canada | 19 | 30 | 2 | 6 | 49 | 8 |
| Chardot | 1999 | France | 62 | 146 | 4 | 13 | 208 | 17 |
| Diem | 2003 | Belgium | 50 | 235 | 6 | 37 | 285 | 43 |
| Tiao | 2008 | China | 3 | 57 | 1 | 45 | 60 | 46 |
| Neto | 2015 | Brazil | 35 | 174 | 23 | 115 | 209 | 138 |
| Tambucci | 2021 | Belgium | 14 | 282 | 8 | 89 | 296 | 97 |
| Li | 2022 | China | 8 | 43 | 12 | 42 | 51 | 54 |
| Zhang | 2022 | China | 33 | 509 | 21 | 317 | 542 | 338 |
| Yoeli | 2022 | USA | 108 | 2232 | 31 | 405 | 2340 | 436 |

**1-year graft survival**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Death with Kasai | Alive with Kasai | Death without Kasai | Alive without Kasai | Pop with Kasai | Pop without Kasai |
| Sandler | 1997 | Canada | 16 | 33 | 3 | 5 | 49 | 8 |
| Diem | 2003 | Belgium | 68 | 217 | 6 | 37 | 285 | 43 |
| Alexopoulos | 2012 | USA | 15 | 97 | 1 | 21 | 112 | 22 |
| Neto | 2015 | Brazil | 26 | 183 | 19 | 119 | 209 | 138 |
| Tambucci | 2021 | Belgium | 22 | 274 | 5 | 92 | 296 | 97 |
| Zhang | 2022 | China | 33 | 509 | 18 | 320 | 542 | 338 |
| Lemoine | 2022 | USA | 9 | 88 | 1 | 13 | 97 | 14 |
| Yoeli | 2022 | USA | 212 | 2128 | 44 | 392 | 2340 | 436 |

**5-year graft survival**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Death with Kasai | Alive with Kasai | Death without Kasai | Alive without Kasai | Pop with Kasai | Pop without Kasai |
| Diem | 2003 | Belgium | 83 | 202 | 9 | 34 | 285 | 43 |
| Neto | 2015 | Brazil | 39 | 170 | 34 | 104 | 209 | 138 |
| Tambucci | 2021 | Belgium | 27 | 269 | 9 | 88 | 296 | 97 |
| Zhang | 2022 | China | 38 | 504 | 26 | 312 | 542 | 338 |
| Yoeli | 2022 | USA | 277 | 2063 | 61 | 375 | 2340 | 436 |

**Biliary complications**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 6 | 22 | 1 | 7 | 28 | 8 |
| Meister | 1993 | USA | 2 | 30 | 1 | 6 | 32 | 7 |
| Sandler | 1997 | Canada | 3 | 46 | 1 | 7 | 49 | 8 |
| Guo | 2010 | China | 1 | 8 | 0 | 13 | 9 | 13 |
| Alexopoulos | 2012 | USA | 3 | 109 | 3 | 19 | 112 | 22 |
| Wang | 2013 | China | 0 | 10 | 0 | 18 | 10 | 18 |
| Neto | 2015 | Brazil | 39 | 170 | 12 | 126 | 209 | 138 |
| Chung | 2015 | China | 19 | 55 | 2 | 5 | 74 | 7 |
| Mohan | 2016 | India | 7 | 31 | 1 | 19 | 38 | 20 |
| Li | 2019 | China | 9 | 80 | 5 | 56 | 89 | 61 |
| Chang | 2021 | China | 4 | 34 | 2 | 34 | 38 | 36 |
| Tambucci | 2021 | Belgium | 22 | 274 | 3 | 94 | 296 | 97 |
| Li | 2022 | China | 1 | 50 | 4 | 50 | 51 | 54 |
| Zhang | 2022 | China | 57 | 485 | 25 | 313 | 542 | 338 |
| Liu | 2022 | China | 15 | 139 | 7 | 36 | 154 | 43 |

**Intestinal perforation**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 3 | 25 | 1 | 7 | 28 | 8 |
| Meister | 1993 | USA | 2 | 30 | 0 | 7 | 32 | 7 |
| Sandler | 1997 | Canada | 11 | 38 | 0 | 8 | 49 | 8 |
| Guo | 2010 | China | 0 | 9 | 3 | 10 | 9 | 13 |
| Wang | 2013 | China | 0 | 10 | 4 | 14 | 10 | 18 |
| Neto | 2015 | Brazil | 14 | 195 | 2 | 136 | 209 | 138 |
| Mohan | 2016 | India | 9 | 29 | 0 | 20 | 38 | 20 |
| Li | 2019 | China | 3 | 86 | 1 | 60 | 89 | 61 |
| Tambucci | 2021 | Belgium | 24 | 272 | 3 | 94 | 296 | 97 |
| Li | 2022 | China | 1 | 50 | 2 | 52 | 51 | 54 |
| Zhang | 2022 | China | 14 | 528 | 4 | 334 | 542 | 338 |
| Liu | 2022 | China | 6 | 148 | 2 | 41 | 154 | 43 |

**Intestinal obstruction**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Meister | 1993 | USA | 0 | 32 | 1 | 6 | 32 | 7 |
| Guo | 2010 | China | 1 | 8 | 0 | 13 | 9 | 13 |
| Wang | 2013 | China | 1 | 9 | 1 | 17 | 10 | 18 |
| Tambucci | 2021 | Belgium | 3 | 293 | 1 | 96 | 296 | 97 |
| Zhang | 2022 | China | 31 | 511 | 27 | 311 | 542 | 338 |

**Bleeding**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 3 | 25 | 0 | 8 | 28 | 8 |
| Meister | 1993 | USA | 6 | 26 | 0 | 7 | 32 | 7 |
| Sandler | 1997 | Canada | 7 | 42 | 0 | 8 | 49 | 8 |
| Guo | 2010 | China | 1 | 8 | 2 | 11 | 9 | 13 |
| Wang | 2013 | China | 2 | 8 | 2 | 16 | 10 | 18 |
| Neto | 2015 | Brazil | 7 | 202 | 4 | 134 | 209 | 138 |
| Tambucci | 2021 | Belgium | 12 | 284 | 4 | 93 | 296 | 97 |

**Hepatic artery complications**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 3 | 25 | 1 | 7 | 28 | 8 |
| Meister | 1993 | USA | 3 | 29 | 1 | 6 | 32 | 7 |
| Guo | 2010 | China | 2 | 7 | 1 | 12 | 9 | 13 |
| Alexopoulos | 2012 | USA | 9 | 103 | 2 | 20 | 112 | 22 |
| Wang | 2013 | China | 2 | 8 | 2 | 16 | 10 | 18 |
| Neto | 2015 | Brazil | 10 | 199 | 8 | 130 | 209 | 138 |
| Safwan | 2016 | India | 2 | 31 | 1 | 24 | 33 | 25 |
| Mohan | 2016 | India | 1 | 37 | 2 | 18 | 38 | 20 |
| Li | 2019 | China | 2 | 87 | 2 | 59 | 89 | 61 |
| Chang | 2021 | China | 3 | 35 | 1 | 35 | 38 | 36 |
| Tambucci | 2021 | Belgium | 13 | 283 | 1 | 35 | 296 | 36 |
| Li | 2022 | China | 2 | 49 | 1 | 53 | 51 | 54 |
| Zhang | 2022 | China | 23 | 519 | 16 | 322 | 542 | 338 |
| Liu | 2022 | China | 5 | 149 | 4 | 39 | 154 | 43 |

**Hepatic vein complications**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Guo | 2010 | China | 1 | 8 | 0 | 13 | 9 | 13 |
| Wang | 2013 | China | 0 | 10 | 1 | 17 | 10 | 18 |
| Liu | 2022 | China | 13 | 141 | 1 | 42 | 154 | 43 |

**Infection**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Infection with Kasai | Not infected with Kasai | Infection without Kasai | Not infected without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 10 | 18 | 2 | 6 | 28 | 8 |
| Meister | 1993 | USA | 9 | 23 | 1 | 6 | 32 | 7 |
| Guo | 2010 | China | 5 | 4 | 5 | 8 | 9 | 13 |
| Alexopoulos | 2012 | USA | 53 | 59 | 6 | 16 | 112 | 22 |
| Wang | 2013 | China | 6 | 4 | 4 | 14 | 10 | 18 |
| Yang | 2018 | China | 0 | 58 | 5 | 40 | 58 | 45 |
| Chang | 2021 | China | 4 | 34 | 3 | 33 | 38 | 36 |
| Liu | 2022 | China | 13 | 141 | 2 | 41 | 154 | 43 |

**Lymphatic fistula**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Meister | 1993 | USA | 0 | 32 | 1 | 6 | 32 | 7 |
| Li | 2019 | China | 16 | 73 | 12 | 49 | 89 | 61 |
| Zhang | 2022 | China | 157 | 385 | 111 | 227 | 542 | 338 |

**Portal vein complications**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Meister | 1993 | USA | 2 | 30 | 0 | 7 | 32 | 7 |
| Guo | 2010 | China | 1 | 8 | 0 | 13 | 9 | 13 |
| Alexopoulos | 2012 | USA | 9 | 103 | 0 | 22 | 112 | 22 |
| Wang | 2013 | China | 0 | 10 | 0 | 18 | 10 | 18 |
| Neto | 2015 | Brazil | 28 | 181 | 20 | 118 | 209 | 138 |
| Safwan | 2016 | India | 4 | 29 | 3 | 22 | 33 | 25 |
| Yang | 2018 | China | 2 | 56 | 2 | 43 | 58 | 45 |
| Li | 2019 | China | 3 | 86 | 2 | 34 | 89 | 36 |
| Chang | 2021 | China | 3 | 35 | 2 | 34 | 38 | 36 |
| Tambucci | 2021 | Belgium | 14 | 282 | 0 | 97 | 296 | 97 |
| Li | 2022 | China | 2 | 0 | 51 | 3 | 2 | 54 |
| Zhang | 2022 | China | 70 | 472 | 35 | 303 | 542 | 338 |
| Liu | 2022 | China | 8 | 146 | 1 | 42 | 154 | 43 |

**Rejection**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Sandler | 1997 | Canada | 19 | 30 | 3 | 5 | 49 | 8 |
| Wang | 2013 | China | 3 | 7 | 1 | 17 | 10 | 18 |
| Safwan | 2016 | India | 10 | 23 | 4 | 21 | 33 | 25 |
| Yang | 2018 | China | 1 | 57 | 2 | 43 | 58 | 45 |
| Chang | 2021 | China | 2 | 36 | 6 | 30 | 38 | 36 |
| Zhang | 2022 | China | 177 | 365 | 92 | 246 | 542 | 338 |
| Liu | 2022 | China | 23 | 131 | 8 | 35 | 154 | 43 |

**Reoperation**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 10 | 18 | 1 | 7 | 28 | 8 |
| Wood | 1990 | USA | 20 | 25 | 2 | 0 | 45 | 2 |
| Meister | 1993 | USA | 21 | 11 | 4 | 3 | 32 | 7 |
| Visser | 2004 | USA | 14 | 28 | 7 | 6 | 42 | 13 |
| Guo | 2010 | China | 1 | 8 | 2 | 11 | 9 | 13 |
| Alexopoulos | 2012 | USA | 39 | 73 | 12 | 10 | 112 | 22 |
| Wang | 2013 | China | 8 | 2 | 9 | 9 | 10 | 18 |
| Neto | 2015 | Brazil | 45 | 164 | 26 | 112 | 209 | 138 |
| Safwan | 2016 | India | 8 | 25 | 5 | 20 | 33 | 25 |
| Yang | 2018 | China | 0 | 58 | 0 | 45 | 58 | 45 |
| Liu | 2022 | China | 28 | 126 | 11 | 32 | 154 | 43 |

**Retransplantation**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First author | Year | Country | Complications with Kasai | No complications with Kasai | Complications without Kasai | No complications without Kasai | Pop with Kasai | Pop without Kasai |
| Millis | 1988 | USA | 5 | 23 | 1 | 7 | 28 | 8 |
| Meister | 1993 | USA | 3 | 29 | 1 | 6 | 32 | 7 |
| Sandler | 1997 | Canada | 9 | 40 | 1 | 7 | 49 | 8 |
| Cowles | 2008 | USA | 4 | 57 | 2 | 8 | 61 | 10 |
| Wang | 2013 | China | 0 | 10 | 1 | 17 | 10 | 18 |
| Yang | 2018 | China | 0 | 58 | 0 | 45 | 58 | 45 |
| Tambucci | 2021 | Belgium | 13 | 283 | 1 | 96 | 296 | 97 |
| Lemoine | 2022 | USA | 8 | 89 | 2 | 12 | 97 | 14 |