Table 1. Concomittant cholangiocarcinoma in hepatic resection for hepatolithiasis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| First author  | Year | Nation  | Case(N) | Incidence |
| Zhu34 | 2014 | China | 2,056  | 107 (5.2%) |
| Lin32 | 2013 | Taiwan | 211 | 10 (4.7%) |
| Tabrizian35 | 2012 | Italy | 30 | 7 (23.3%) |
| Cheon30 | 2009 | Korea | 90 | 8 (9%) |
| Uenishi12 | 2009 | Japan | 86 | 10 (12%) |
| Lee36 | 2007 | Taiwan | 123 | 4 (3.3%) |
| Catena37 | 2006 | Italy | 17 | 2 (11.7%) |
| Chen38 | 2004 | Hong Kong | 103 | 10 (9.7%) |

Table2. Subsequent cholangiocarcinoma after initial mangement for hepatolithiasis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Author | Year | Nation | Case (N) | Incidence of cholangiocarcinoma |
|  | Stone removal |
| Total | Complete | Residual |
| Kim33  | 2015 | Korea | 236 | 6.8% |  3.3% |  10.4% |
| Tsuyuguchi39 | 2014 | Japan | 121 | 9.9% |  9.1% |  10.4% |
| Lin32 | 2013 | Taiwan | 197 | 6.1% |  4.9% |  11.8% |
| Park6 | 2013 | Korea | 85 | 2.4% |  |  |
| Cheon30 | 2009 | Korea | 225 | 4.9% |  4% |  8% |
| Uenish12 | 2009 | Japan | 76 | 2.6% |  |  |
| Lee36 | 2007 | Taiwan | 123 | 1.6% |  |  |
| Chen38 | 2004 | Hong Kong | 91 | 3.3% |  |  |
| Huang42 | 2003 | Taiwan | 209 | 2.4% |  0.7% |  6.6% |

Table 3 Clinical characteristics of subsequent cholangiocarcinoma patients

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Case  | Age/Sex | Location of stone | Treatmentmethod | Residualstone | Time of CC(mo) | Location of CC | Stage |
| 1 | M/65 | Lt | ERCP  | yes | 14 | Lt | IVA |
| 2 | M/69 | Lt | PTCSL | yes | 15 | Lt | III |
| 3 | M/72 | Lt | PTCSL | yes | 17 | Lt | IVA |
| 4 | M/66 | Lt | ERCP  | yes | 21 | Lt | III |
| 5 | M/51 | Lt | PTCSL | yes | 13 | Lt | IVA |
| 6 | M/63 | Lt | PTCSL | no | 53 | Lt | IVA |
| 7 | F/71 | Rt | ERCP  | yes | 79 | Both | III |
| 8 | F/54 | Both | PTCSL | yes | 10 | Lt | IVA |
| 9 | F/56 | Rt | PTCSL | no | 111 | Rt | IVA |
| 10 | F/65 | Both | PTCSL | yes | 72 | Lt | IVA |
| 11 | M/60 |  Both | Lt.hemihepatectomy  | yes | 102 | Rt | III |
| 12 | F/67 |  Both | Lt. lobectomy | yes | 55 | Rt | IVA |
| 13 | F/51 |  Lt | Lt. hemihepatectomy | no | 109 | Lt | II |
| 14 | M/52 |  Both | Lt. lobectomy  | yes | 28 | Rt | IVA |
| 15\* | F/47 |  Lt | Lt. hemihepatectomy  | no | 14 | Caudate | III |
| 16 | F/56 |  Both | Lt. lobectomy | yes | 81 | Rt | IVB |

CC: cholangiocracinoma; Lt: Left; Rt: Right; ERCP endoscopic cholangiopancreatography; PTCSL: percutaneaous transhepatic choledochoscopic lithotomy; \*: described in figure 3.