**Table 1 Available case reports of maxillary first molar with fewer root canals and C-shaped root canals**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **reference** | **Country** | **Gender** | **Ethnicity** | **No. of canals** | **Features of the root canals** | **Type** | **Symmetry or not** |
| Newton[13]  (1984) | United States | Male | White | 2 | Fusion between P and DB canals, and a single MB canal | Type A | N/A |
| Dankner[28]  (1990) | Israel | Female | White | 3 | Fusion between P and DB canals, and a single MP canal | Type A | Yes |
| Fava[8]  （2001） | Brazil | Female | N/A | 3 | Fusion between MB and DB, but with 2 root canal apexes, and a single C-shaped P canal | Type B | N/A |
| De Moor[34]  (2002) | Belgium | Female | White | 3 | Fusion between P and DB canals, and single MB, MP canals | Type A | N/A |
| De Moor[34]  (2002) | Belgium | Male | White | 2 | Fusion between P and DB canals, and a single MB canal | Type A | No |
| Gopikrishna[7]  （2006） | India |  | N/A | 1 | A single root with 1 root canal | / | N/A |
| Yilmaz[29]  （2006） | Turkey | Female | White | 2 | Fusion between MB and DB canals, but with 3 foramina, and a single P canal | Type B | N/A |
| Ma[25]  （2009） | China | Female | Yellow | 2 | Fusion between MB and DB canals, and a single P canal | Type B | Yes |
| Kottoor[11]  （2011） | India | Male | N/A | 4 | Fusion between 2 P canals, and single MB, DB canals | Type C | No |
| Martins[6]  (2013) | Portugal | Male | White | 2 | Fusion between P and DB canals, and a single MB canal | Type A | Yes |
| Martins[6]  (2013) | Portugal | Female | White | 2 | Fusion between MB and DB canals, and a single P canal | Type B | N/A |
| Shin[30]  (2013) | Korea | Male | Yellow | 1 | All the roots fuse together into one O-shaped root, but 5–6 root canals with connecting fins at the apical 3mm | O-shaped | Yes |
| Joshi[31]  (2014) | India | female | N/A | 1 | A single fused root with a single canal | / | Yes |
| Paksefat[32]  (2014) | Iran | female | N/A | 3 | Fusion between MB and DB canals, and single separate P and MB2 canals | Type B | No |
| Present study  (case 1) | China | Female | Yellow | 2 | Fusion between MB and DB canals, and a single P canal | Type B | Yes |
| Present study  (case 2) | China | Female | Yellow | 2 | Fusion between MB and DB canals, and a single P canal | Type B | Yes |

DB, distobuccal; MB, mesiobuccal; N/A, not available; P, palatal.