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| Supplementary Table 1. Clinical and prognostic details of entire 121 cases with IMC | | | | | | | |
| N | Author, year | Age (yrs)  /Sex | Gen. loc./Ten. loc.  /Sku. base/Bone inv. | Tum. size (cm)/  edema/ki-67 (%) | GTR/RT/CMT | Progression/PFS (mon.)/Death/OS (mon.) |
| 1 | Dahlin et al., 1962[10] | 44/F | Parietal/sup./no/yes | 6/nana/na | yes/no/no | yes/25/yes/108 |
| 2 | Flyger et al., 1963[16] | 11/M | Frontal/sup./no/na | 5/na/na | yes/no/no | no/5/no/5 |
| 3 | Raskind et al., 1966[43] | 48/F | Frontoparietal/sup./no/na | 8/na/na | no/no/no | yes/yes/yes/0,1 |
| 4 | Wu et al., 1970[66] | 18/F | Frontao-parietal/sup./no/yes | 10.4/na/na | no/no/no | yes/14/yes/14 |
| 5 | Salvador et al., 1971[49] | 17/F | Occiput/inf./no/yes | na/na/na | na/na/na | na/na/na/na |
| 6 | Salvador et al., 1971[49] | 24/F | Skull/na/na/yes | na/na/na | no/na/na | na/na/na/na |
| 7 | Waga et al., 1972[63] | 51/F | Frontoparietal/sup./no/na | na/na/na | yes/yes/no | yes/2/yes/11 |
| 8 | Seth et al., 1973[54] | 32/M | Skull base/sup./yes/yes | 5/na/na | nana/yes/no | na/na/na/na |
| 9 | Lynch et al., 1973[31] | 13/M | Frontal /sup./no/yes | 2.5/na/na | yes/no/no | no/18/no/18 |
| 10 | Guccion et al., 1973[19] | 19/M | Parietal/sup./no/na | na/na/na | no/yes/no | yes/na/no/12 |
| 11 | el-Gindi et al., 1974[14] | 23/M | Parietotemporal/sup./no/no | na/na/na | na/yes/no | no/8/na/8 |
| 12 | Scheithauer et al., 1978[52] | 40/M | Convexity/sup./no/na | 8/na/na | na/no/no | na/na/yes/0,27 |
| 13 | Scheithauer et al., 1978[52] | 7/M | Temperal/sup./na/na | na/na/na | na/na/na | yes/na/yes/84 |
| 14 | Scheithauer et al., 1978[52] | 17/F | Frontal/inf./na/na | na/na/na | yes/na/na | no/24/yes/24 |
| 15 | Zucker and Horoupian et al., 1978[71] | 19/M | Occipital/sup./na/na | na/na/na | yes/no/no | na/na/na/na |
| 16 | Rollo et al., 1979[46] | 11/M | Parieto-occipital/sup./na/na | na/na/na | no/yes/no | na/na/no/96 |
| 17 | Heros et al., 1980[22] | 22/F | Parasagittal/sup./no/na | na/na/na | yes/no/no | yes/3/yes/0,1 |
| 18 | Heros et al., 1980[22] | 23/F | Parietal/sup./no/na | na/na/na | yes/yes/no | no/54/no/54 |
| 19 | Heros et al., 1980[22] | 26/F | Cerebellum/inf./no/na | na/na/na | yes/no/no | no/30/no/30 |
| 20 | Heros et al., 1980[22] | 33/M | Sphenoid wing/sup./yes/yes | na/na/na | no/no/no | no/36/no/36 |
| 21 | Harwood et al., 1981[20] | 22/M | Cerebellum/inf./no/na | na/na/na | na/no/no | yes/4/yes/4 |
| 22 | Kubota et al., 1982[26] | 21/F | Frontal/sup./no/na | na/na/na | yes/no/no | no/84/yes/84 |
| 23 | Rodda and Franklin et al., 1984[45] | 12/F | Frontal/sup./no/na | na/na/na | yes/no/no | yes/3/yes/7 |
| 24 | Hassounah et al., 1985[21] | 65/M | Petrous pyramid and jugular foramen/inf./yes/yes | 3/na/na | yes/no/no | no/10/no/10 |
| 25 | Nagata et al., 1986[36] | 15/M | Falx cerebri/sup./no/no | 3/na/na | yes/no/no | no/60/no/60 |
| 26 | Nokes et al., 1987[38] | 61/F | Parietal/sup./no/na | na/na/na | na/yes/no | no/na/no/na |
| 27 | Shuangshoti et al., 1989[57] | 14/M | Occipital/sup./na/yes | 15/na/na | no/na/na | na/na/na/na |
| 28 | Greenblatt et al., 1990[18] | 19/M | Occipital/sup./no/yes | na/yes/na | no/no/yes | yes/30/no/66 |
| 29 | Paulus et al., 1991[40] | 17/M | Tentorium/na/no/na | na/na/na | nana/na/na | na/na/na/na |
| 30 | Chhem et al., 1992[6] | 11/F | Parietal/sup./no/no | na/yes/na | na/yes/no | yes/na/yes/18 |
| 31 | Morimoto et al., 1992[35] | 21/F | Anterior fossa/sup./yes/yes | na/na/na | no/yes/yes | yes/4/no/24 |
| 32 | Cho et al., 1993[7] | 13/F | Frontoparietal/sup./no/yes | na/na/na | yes/no/no | yes/21/no/38 |
| 33 | Schut et al., 1994[53] | 12/F | PreFrontal/sup./no/na | na/na/na | na/yes/yes | yes/na/yes/na |
| 34 | Schut et al., 1994[53] | 0,9/M | Frontal/sup./no/na | na/na/na | na/yes/no | na/na/yes/na |
| 35 | Rushing et al., 1996[47] | 0,4/M | Frontal/sup./no/yes | na/na/na | yes/yes/no | no/14/no/14 |
| 36 | Rushing et al., 1996[47] | 7/F | Sphenoid ridge/sup./yes/yes | na/na/na | no/no/no | yes/60/yes/60 |
| 37 | Rushing et al., 1996[47] | 11/F | Frontal/sup./no/no | na/na/na | no/yes/no | yes/20/yes/20 |
| 38 | Rushing et al., 1996[47] | 13/F | Sphenoid ridge/sup./yes/yes | na/na/na | yes/no/no | no/15/no/15 |
| 39 | Rushing et al., 1996[47] | 15/M | Parasagittal (falcine)/sup./no/na | na/na/na | no/yes/no | yes/na/yes/72 |
| 40 | Rushing et al., 1996[47] | 17/F | Frontal/sup./no/no | na/na/na | yes/yes/no | yes/84/yes/84 |
| 41 | Rushing et al., 1996[47] | 45/M | Meckel’s cave/sup./yes/yes | na/na/na | yes/yes/no | no/28/no/28 |
| 42 | Rushing et al., 1996[47] | 68/M | Parasagittal (Falcine)/na/no/na | na/na/na | yes/yes/no | yes/na/yes/120 |
| 43 | Malik et al., 1996[32] | 8/M | Cerebellum/inf./no/na | na/na/na | yes/yes/yes | na/na/no/18 |
| 44 | Nozaki et al., 1999[39] | 15/M | Jugular foramen/inf./yes/yes | 5/na/na | no/yes/no | no/36/no/35 |
| 45 | Crosswell et al., 2000[9] | 6/M | Frontoparietal/sup./no/yes | 10/na/na | yes/no/yes | yes/2/yes/2 |
| 46 | Crosswell et al., 2000[9] | 24/F | Frontal/sup./no/na | na/na/na | yes/yes/no | no/30/no/30 |
| 47 | Bingaman et al., 2000[3] | 21/F | Falcine/sup./no/na | 6/na/na | yes/no/no | no/18/no/18 |
| 48 | Merimsky et al., 2000[34] | 33/F | Temporal/sup./no/yes | na/na/na | no/yes (50 Gy)/no | yes/8/yes/12 |
| 49 | Demirtaş et al., 2000[12] | 15/M | Frontal/sup./no/na | na/na/20 | yes/yes/yes | no/42/no/42 |
| 50 | Crockard et al., 2001[8] | 26/F | Foramen magnum/inf./yes/yes | na/na/na | na/no/yes | yes/na/yes/20 |
| 51 | Marshman et al., 2001[33] | 17/F | Temporoparietal/sup./no/no | na/yes/na | yes/no/no | yes/4/yes/4 |
| 52 | Inega et al., 2003[24] | 21/M | Sella and caver nous sinus/sup./yes/yes | na/na/13,2 | no/yes (30 Gy)/no | yes/4/yes/31 |
| 53 | La Spi et al., 2003[27] | 14/F | Posterior fossa/inf./no/yes | 7/na/na | no/yes/yes | no/24/no/24 |
| 54 | Bose et al., 2003[1] | 60/M | BiFrontal/sup./no/na | 7/na/na | yes/yes/no | yes/na/yes/27 |
| 55 | Huang et al., 2004[23] | 13/F | Parafalcine Frontal/sup./no/no | 7/yes/na | yes/no/no | no/24/no/24 |
| 56 | Chen et al., 2004[5] | 13/F | Bi-Frontal falcine/sup./no/na | 8/na/na | yes/no/no | na/na/no/30 |
| 57 | Yassa et al., 2005[70] | 44/M | Cerebellum/inf./no/no | 2/na/na | yes/yes/no | no/60/no/60 |
| 58 | Salvati et al., 2005[50] | 30/F | Frontoparietal/sup./no/na | na/na/na | yes/no/no | yes/na/no/38 |
| 59 | Salvati et al., 2005[50] | 42/F | Frontal/sup./no/na | na/na/na | yes/no/no | no/3/yes/0.9 |
| 60 | Chatzipantelis et al., 2006[4] | 17/M | na/na/na/na | na/na/na | na/na/na | yes/na/no/108 |
| 61 | Waliuddin et al., 2006[64] | 5/M | Temporal/sup./no/no | 9/na/na | yes/yes/no | yes/4/yes/4 |
| 62 | Reyaz et al., 2006[44] | 26/F | Posterior fossa/inf./na/na | 5.5/na/na | na/na/na | na/na/na/na |
| 63 | Förander et al., 2006[17] | 36/F | Falcine/sup./no/na | na/na/na | yes/yes/no | yes/45/no/90 |
| 64 | Förander et al., 2006[17] | 39/F | Petrous bone apex/sup./yes/yes | na/na/na | na/yes/no | yes/12/yes/15 |
| 65 | De Cecio et al., 2008[11] | 0,2/M | Parietal/sup./no/yes | 11/na/na | yes/no/no | yes/yes/yes/1 |
| 66 | Tobias et al., 2008[59] | 15/F | Skull base/na/yes/yes | 7,5/na/na | no/yes (44.4 Gy)/yes | yes/2,6/yes/4,6 |
| 67 | Tobias et al., 2008[59] | 15/F | Parieal skull/sup./no/na | 7.5/na/na | no/no/yes | na/na/yes/06 |
| 68 | Sheth et al., 2009[56] | 42/M | Temporal/sup./no/no | na/na/na | na/yes (60 Gy)/no | yes/10,5/yes/15 |
| 69 | Fanburg-Smith et al., 2010[15] | 32/F | Frontal/sup./no/na | na/na/na | na/na/na | na/na/na/na |
| 70 | Vij et al., 2010[62] | 22/M | Frontal/sup./no/no | 3/na/na | yes/na/na | na/na/na/na |
| 71 | Fanburg-Smith et al., 2010[15] | 13/F | Frontal/sup./no/na | na/na/na | na/na/na | na/na/na/na |
| 72 | Fanburg-Smith et al., 2010[15] | 12/F | Frontal/sup./no/na | na/na/na | na/na/na | na/na/na/na |
| 73 | Fanburg-Smith et al., 2010[15] | 32/F | Frontal/sup./no/na | na/na/na | na/na/na | na/na/na/na |
| 74 | Rachel et al., 2011[41] | 17/M | Skull bone/na/na/na | na/na/na | na/no/no | na/na/no/21,8 |
| 75 | Rachel et al., 2011[41] | 16/M | Skull bone/na/na/na | na/na/na | na/yes/no | na/na/no/6 |
| 76 | Rachel et al., 2011[41] | 30/F | Skull bone/sup./no/yes | na/na/na | na/na/na | na/na/no/1.2 |
| 77 | Sardi et al., 2011[51] | 16/na | Frontal/sup./no/no | na/na/na | yes/yes (50.4Gy)/yes | no/55,2/no/55 |
| 78 | Sardi et al., 2011[51] | 9/na | Infratentorial/inf./no/no | na/na/na | yes/yes (54 Gy)/yes | no/33/no/33 |
| 79 | Ramesh et al., 2011[42] | 15/F | Frontoparietal/sup./no/no | na/yes/na | na/no/no | yes/6/no/6 |
| 80 | Lin et al., 2012[29] | 22/F | Middle fossa/sup./yes/yes | na/na/na | yes/no/no | yes/36/no/36 |
| 81 | Lin et al., 2012[30] | 21/F | Tentorium cerebelli/inf./no/no | 2.8/na/1 | yes/yes/yes | yes/na/no/6 |
| 82 | Kan et al., 2012[25] | 31/F | Bi-Frontal/sup./no/no | 7.2/na/na | yes/yes/no | no/3/no/3 |
| 83 | Vergeer et al., 2012[61] | 71/F | Frontal/sup./no/no | 5.6/yes/na | yes/yes/yes | yes/3/yes/48 |
| 84 | Nguyen et al., 2013[37] | 30/M | Frontal (skull base)/sup./yes/yes | na/no/60 | no/yes/no | yes/3/no/25 |
| 85 | Thakar et al., 2013[58] | 35/F | BiFrontal (2x)/sup./yes/yes | 6/yes/na | no/na/no | na/na/na/na |
| 86 | Xiao et al., 2014[67] | 23/M | Tentorium/inf./no/no | 5.7/yes/2 | no/yes/no | no/30/no/30 |
| 87 | Yan et al., 2015[68] | 22/F | Frontal gyrus/sup./no/no | 1.7/yes/na | yes/na/na | na/na/na/na |
| 88 | Sadashiva et al., 2016[48] | 42/F | ACB/sup./yes/yes | na/yes/na | yes/yes/no | no/66/no/66 |
| 89 | Sadashiva et al., 2016[48] | 7/M | Falx cerebri/sup./no/yes | na/yes/na | yes/yes/no | no/21/no/21 |
| 90 | Sadashiva et al., 2016[48] | 52/F | Frontal/sup./no/no | na/na/na | yes/no/no | yes/7/no/16 |
| 91 | Laghari et al., 2017[28] | 28/M | CPA/inf./yes/yes | na/na/na | no/na/no | na/na/na/na |
| 92 | Wang et al., 2018[65] | 57/M | Parietal/sup./no/no | 3,3/na/na | yes/yes/no | yes/13/yes/21 |
| 93 | Wang et al., 2018[65] | 40/F | Frontoparietal/sup./no/no | 2,7/na/na | no/yes/no | yes/32/yes/48 |
| 94 | Wang et al., 2018[65] | 38/M | Sphenoethmoidal synchondrosis/sup./yes/yes | 6,48/na/na | no/yes/no | yes/6/yes/17 |
| 95 | Wang et al., 2018[65] | 32/F | Sphenopetrosal synchondrosis/sup./yes/yes | 3/na/na | no/yes/no | yes/60/no/78 |
| 96 | Wang et al., 2018[65] | 28/M | Sphenopetroclival synchondrosis/sup./yes/yes | 5/na/na | no/yes/no | yes/13/no/14 |
| 97 | Wang et al., 2018[65] | 16/F | Sphenopetroclival synchondrosis/sup./yes/yes | 10/na/10 | yes/yes/no | no/69/no/69 |
| 98 | Wang et al., 2018[65] | 22/M | Sphenopetrosal synchondrosis/sup./yes/yes | 4,9/na/5 | no/yes/no | yes/6/no/62 |
| 99 | Wang et al., 2018[65] | 2/M | Temproral/sup./no/no | 5/na/na | no/no/no | no/51/no/51 |
| 100 | Wang et al., 2018[65] | 24/F | Forth ventricular /inf./no/no | 4/na/na | yes/no/no | yes/46/no/48 |
| 101 | Wang et al., 2018[65] | 7/M | Lateral ventricle/sup./no/no | 7,6/na/na | yes/yes/no | yes/46/no/46 |
| 102 | Wang et al., 2018[65] | 15/M | Sphenopetroclival synchondrosis/sup./yes/yes | 6,5/na/10 | no/no/no | no/na/no/na |
| 103 | Wang et al., 2018[65] | 13/M | Frontal /sup./no/no | 5,9/na/na | yes/no/no | no/10/no/10 |
| 104 | Wang et al., 2018[65] | 31/M | Temporal /sup./no/no | 2,8/na/30 | yes/no/no | no/34/no/34 |
| 105 | Wang et al., 2018[65] | 21/F | Sphenoethmoidal synchondrosis/sup./yes/yes | 6,3/na/15 | no/no/no | yes/24/yes/24 |
| 106 | Wang et al., 2018[65] | 10/M | Temporal /sup./no/no | 7/na/na | yes/no/no | no/26/no/26 |
| 107 | Wang et al., 2018[65] | 10/M | Petrooccipital /sup./yes/yes | 8,9/na/na | no/no/no | no/16/no/16 |
| 108 | Dutta et al., 2019[13] | 20/F | BiFrontal/sup./no/yes | 6.5/yes/na | yes/yes (40 Gy)/no | yes/24/no/24 |
| 109 | Shabani et al., 2019[55] | 21/F | Parietal/sup./no/no | 6.7/na/na | yes/yes/yes | yes/12/yes/35 |
| 110 | Bhardwaj et al., 2020[2] | 26/M | Temporal/sup./yes/yes | na/no/na | yes/no/no | yes/2/yes/2 |
| 111 | Uneda et al., 2020[60] | 28/F | Temporal/sup./yes/yes | 5/yes/20 | no/yes (70.4 Gy)/no | no/6/no/6 |
| 112 | Yapicier et al., 2020[69] | 1,3/M | Temporooccipiital/sup./no/yes | 6/no/70 | yes/no/yes | no/21/no/21 |
| 113 | Present, 2020 | 3/M | Frontal/na/no/no | 3/no/5 | yes/yes/no | yes/48/yes/54 |
| 114 | Present, 2020 | 5/F | Sphenopetroclival /na/yes/yes | 4/no/9 | yes/yes/no | yes/30/no/42 |
| 115 | Present, 2020 | 12/F | Temperal/na/no/no | 6/yes/25 | no/no/yes | yes/21/yes/30 |
| 116 | Present, 2020 | 23/M | Tentorium/na/no/no | 6/yes/8 | no/yes/no | no/21/no/25 |
| 117 | Present, 2020 | 24/M | PCB/na/no/yes | 5.5/no/12 | yes/no/no | yes/24/yes/26 |
| 118 | Present, 2020 | 27/F | Frontal/na/no/no | 6/yes/40 | no/no/no | yes/5/yes/7 |
| 119 | Present, 2020 | 30/F | Jugular foramen/na/yes/yes | 7,4/no/9 | yes/yes/yes | yes/28/yes/28 |
| 120 | Present, 2020 | 41/F | Parietal/na/no/no | 4.2/no/17 | no/yes/no | no/21/no/15 |
| 121 | Present, 2020 | 46/F | Temperal/na/yes/yes | 3/no/3 | yes/no/no | na/na/na/na |
| Gen. loc., general location; Ten. loc, tentorial location; sku. skull; inv., involvement; ACB, anterior cranial base; MCB, middle cranial base; PCB, posterior cranial base | | | | | | | |

Reference:

1. B B (2003) Intracranial extraskeletal mesenchymal chondrosarcoma: case report and review of the literature. Neurosurg Quart 13:30-39

2. Bhardwaj S, Sharma A, Sharma A (2020) Mesenchymal Chondrosarcoma of the Brain with Metastasis: A Case Report with Literature Review. J Neurosci Rural Pract 11:344-348. doi:10.1055/s-0040-1709355

3. Bingaman KD, Alleyne CH, Jr., Olson JJ (2000) Intracranial extraskeletal mesenchymal chondrosarcoma: case report. Neurosurgery 46:207-211; discussion 211-202

4. Chatzipantelis P, Karvouni E, Fragoulidis GP, Voros D, Pafiti A (2006) Clinicopathologic features of two rare cases of mesenchymal metastatic tumors in the pancreas: review of the literature. Pancreas 33:301-303. doi:10.1097/01.mpa.0000234075.53630.2f

5. Chen JY, Hsu SS, Ho JT (2004) Extraskeletal intracranial mesenchymal chondrosarcoma: case report and literature review. Kaohsiung J Med Sci 20:240-246. doi:10.1016/S1607-551X(09)70113-5

6. Chhem RK, Bui BT, Calderon-Villar H, Fontaine S (1992) Case report: primary mesenchymal chondrosarcoma of the brain. Clin Radiol 45:422-423. doi:10.1016/s0009-9260(05)81007-4

7. Cho BK, Chi JG, Wang KC, Chang KH, Choi KS (1993) Intracranial mesenchymal chondrosarcoma: a case report and literature review. Childs Nerv Syst 9:295-299. doi:10.1007/bf00306279

8. Crockard HA, Cheeseman A, Steel T, Revesz T, Holton JL, Plowman N, Singh A, Crossman J (2001) A multidisciplinary team approach to skull base chondrosarcomas. J Neurosurg. doi:10.3171/jns.2001.95.2.0184

9. Crosswell H, Buchino JJ, Sweetman R, Reisner A (2000) Intracranial mesenchymal chondrosarcoma in an infant. Med Pediatr Oncol 34:370-374. doi:10.1002/(sici)1096-911x(200005)34:5<370::aid-mpo14>3.0.co;2-l

10. Dahlin DC, Henderson ED (1962) Mesenchymal chondrosarcoma. Further observations on a new entity. Cancer 15:410-417. doi:10.1002/1097-0142(196203/04)15:2<410::aid-cncr2820150225>3.0.co;2-l

11. De Cecio R, Migliaccio I, Falleti J, Del Basso De Caro M, Pettinato G (2008) Congenital intracranial mesenchymal chondrosarcoma: case report and review of the literature in pediatric patients. Pediatr Dev Pathol 11:309-313. doi:10.2350/07-05-0279.1

12. Demirtaş E, Erşahin Y, Yilmaz F, Mutluer S, Veral A (2000) Intracranial meningeal tumours in childhood: a clinicopathologic study including MIB-1 immunohistochemistry. Pathol Res Pract 196:151-158. doi:10.1016/s0344-0338(00)80095-3

13. Dutta G, Singh D, Saran RK, Singh H, Srivastava AK, Jagetia A (2019) Metastasis from Intracranial Mesenchymal Chondrosarcoma: Report of a Rare Case. J Neurol Surg A Cent Eur Neurosurg 80:58-61. doi:10.1055/s-0038-1655733

14. el-Gindi S, Abd-el-Hafeez M, Salama M (1974) Extracranial skeletal metastases from an intracranial meningeal chondrosarcoma. Case report. J Neurosurg 40:651-653. doi:10.3171/jns.1974.40.5.0651

15. Fanburg-Smith JC, Auerbach A, Marwaha JS, Wang Z, Santi M, Judkins AR, Rushing EJ (2010) Immunoprofile of mesenchymal chondrosarcoma: aberrant desmin and EMA expression, retention of INI1, and negative estrogen receptor in 22 female-predominant central nervous system and musculoskeletal cases. Ann Diagn Pathol 14:8-14. doi:10.1016/j.anndiagpath.2009.09.003

16. Flyger G, Freidenfeldt H, Orell SR (1963) Intracerebral, possibly malignant osteochondrofibroma in a child. Acta Pathol Microbiol Scand 58:299-305. doi:10.1111/j.1699-0463.1963.tb01574.x

17. Förander P, Rähn T, Kihlström L, Ulfarsson E, Mathiesen T (2006) Combination of microsurgery and Gamma Knife surgery for the treatment of intracranial chondrosarcomas. J Neurosurg 105 Suppl:18-25. doi:10.3171/sup.2006.105.7.18

18. Greenblatt SH (1990) Left occipital lobectomy and the preangular anatomy of reading. Brain Lang 38:576-595. doi:10.1016/0093-934x(90)90138-7

19. Guccion JG, Font RL, Enzinger FM, Zimmerman LE (1973) Extraskeletal mesenchymal chondrosarcoma. Arch Pathol 95:336-340

20. Harwood AR, Krajbich JI, Fornasier VL (1981) Mesenchymal chondrosarcoma: a report of 17 cases. Clin Orthop Relat Res:144-148

21. Hassounah M, Al-Mefty O, Akhtar M, Jinkins JR, Fox JL (1985) Primary cranial and intracranial chondrosarcoma. A survey. Acta Neurochir (Wien) 78:123-132. doi:10.1007/bf01808691

22. Heros RC, Martinez AJ, Ahn HS (1980) Intracranial mesenchymal chondrosarcoma. Surg Neurol 14:311-317

23. Huang YL LP, Lin SL, Yuan MK, Pan HB. (2004) Mesenchymal chondrosarcoma at the falx cerebri. Chin J Radiol 29:337-341

24. Inenaga C, Morii K, Tamura T, Tanaka R, Takahashi H (2003) Mesenchymal chondrosarcoma of the sellar region. Acta Neurochir (Wien) 145:593-597; discussion 597. doi:10.1007/s00701-003-0059-5

25. Kan Z, Li H, Zhang J, You C (2012) Intracranial mesenchymal chondrosarcoma: case report and literature review. Br J Neurosurg 26:912-914. doi:10.3109/02688697.2012.697219

26. Kubota T, Hayashi M, Yamamoto S (1982) Primary intracranial mesenchymal chondrosarcoma: case report with review of the literature. Neurosurgery 10:105-110

27. La Spina M, Dollo C, Giangaspero F, Bertolini P, Russo G (2003) Intracranial mesenchymal chondrosarcoma with osteoid formation: report of a pediatric case. Childs Nerv Syst 19:680-682. doi:10.1007/s00381-003-0727-z

28. Laghari AA, Javed G, Khan MF, Ahmed SI, Nathani KR, Ahmed R (2017) Spontaneous Intraventricular Hemorrhage: A Rare Presentation of a Skull Base Mesenchymal Chondrosarcoma. World Neurosurg 99:811 e811-811 e815. doi:10.1016/j.wneu.2016.12.086

29. Lin H-S, Tsai C-C, Chang C-K, Chen S-J (2012) Giant intracranial mesenchymal chondrosarcoma with uncal herniation. Formosan Journal of Surgery 45:93-96. doi:10.1016/j.fjs.2012.01.004

30. Lin L, Varikatt W, Dexter M, Ng T (2012) Diagnostic pitfall in the diagnosis of mesenchymal chondrosarcoma arising in the central nervous system. Neuropathology 32:82-90. doi:10.1111/j.1440-1789.2011.01224.x

31. Lynch PG, Uriburu E (1973) An intracranial cartilage-containing meningeal tumor. Case report. J Neurosurg 39:261-264. doi:10.3171/jns.1973.39.2.0261

32. Malik SN, Farmer PM, Hajdu SI, Rosenthal A (1996) Mesenchymal chondrosarcoma of the cerebellum. Ann Clin Lab Sci 26:496-500

33. Marshman LA, Gunasekera L, Rose PE, Olney JS (2001) Primary intracerebral mesenchymal chondrosarcoma with rhabdomyosarcomatous differentiation: case report and literature review. Br J Neurosurg 15:419-424

34. Merimsky O, Lepechoux C, Terrier P, Vanel D, Delord JP, LeCesne A (2000) Primary sarcomas of the central nervous system. Oncology 58:210-214. doi:10.1159/000012102

35. Morimoto T, Sasaki T, Takakura K, Ishida T (1992) Chondrosarcoma of the skull base: report of six cases. Skull Base Surg 2:177-185

36. Nagata S, Sawada K, Kitamura K (1986) Chondrosarcoma arising from the falx cerebri. Surg Neurol 25:505-509. doi:10.1016/0090-3019(86)90092-3

37. Nguyen DV, Muda AS, Yaacob Y (2013) Mesenchymal chondrosarcoma: a case report. Malays J Med Sci 20:71-77

38. Nokes SR, Dauito R, Murtagh FR, Love LC, Arrington JA (1987) Intracranial mesenchymal chondrosarcoma. AJNR Am J Neuroradiol 8:1137-1138

39. Nozaki K, Nagata I, Takahashi JA, Hashimoto N (1999) Intracranial mesenchymal chondrosarcoma associated with a left transverse sigmoid dural A-V fistule. Acta Neurochir (Wien) 141:327-328. doi:10.1007/s007010050307

40. Paulus W, Slowik F, Jellinger K (1991) Primary intracranial sarcomas: histopathological features of 19 cases. Histopathology 18:395-402. doi:10.1111/j.1365-2559.1991.tb00869.x

41. Rachel JS, David SG, Richard G, Howard DD (2011) Mesenchymal Chondrosarcoma Clinicopathologic Study of 20 Cases. Arch Pathol Lab Med 136. doi:10.5858/

42. Ramesh VG, Ravisankar S, Chander RV, Saminathan P (2011) Extraskeletal intracranial mesenchymal chondrosarcoma: report of a rare case. Neurol India 59:929-931. doi:10.4103/0028-3886.91392

43. Raskind R, Grant S (1966) Primary mesenchymal chondrosarcoma of the cerebrum. Report of a case. J Neurosurg 24:676-678. doi:10.3171/jns.1966.24.3.0676

44. Reyaz N, Ashraf M (2006) Intracranial extra-skeletal mesenchymal chondrosarcoma. J Ayub Med Coll Abbottabad 18:86-87

45. Rodda RA, Franklin CI (1984) Intracranial meningeal chondrosarcoma--probable mesenchymal type. Aust N Z J Surg 54:387-390

46. Rollo JL, Green WR, Kahn LB (1979) Primary meningeal mesenchymal chondrosarcoma. Arch Pathol Lab Med 103:239-243

47. Rushing EJ, Armonda RA, Ansari Q, Mena H (1996) Mesenchymal chondrosarcoma: a clinicopathologic and flow cytometric study of 13 cases presenting in the central nervous system. Cancer 77:1884-1891. doi:10.1002/(SICI)1097-0142(19960501)77:9<1884::AID-CNCR19>3.0.CO;2-W

48. Sadashiva N, Sharma A, Shukla D, Rajalakshmi P, Mahadevan A, Devi BI (2016) Intracranial Extraskeletal Mesenchymal Chondrosarcoma. World Neurosurg 95:618 e611-618 e616. doi:10.1016/j.wneu.2016.08.049

49. Salvador AH, Beabout JW, Dahlin DC (1971) Mesenchymal chondrosarcoma--observations on 30 new cases. Cancer 28:605-615. doi:10.1002/1097-0142(197109)28:3<605::aid-cncr2820280312>3.0.co;2-r

50. Salvati M, Caroli E, Frati A, Piccirilli M, Agrillo A, Brogna C, Occhiogrosso G, Giangaspero F (2005) Central nervous system mesenchymal chondrosarcoma. J Exp Clin Cancer Res 24:317-324

51. Sardi I, Massimino M, Genitori L, Buccoliero AM, Giangaspero F, Ferrari A (2011) Intracranial mesenchymal chondrosarcoma: report of two pediatric cases. Pediatr Blood Cancer 56:685-686. doi:10.1002/pbc.22906

52. Scheithauer BW, Rubinstein LJ (1978) Meningeal mesenchymal chondrosarcoma: report of 8 cases with review of the literature. Cancer 42:2744-2752. doi:10.1002/1097-0142(197812)42:6<2744::aid-cncr2820420633>3.0.co;2-l

53. Schut L, Canady AI, Sutton LN, Bruce DA (1994) Meningeal tumors in children. 1983. Pediatr Neurosurg 20:207-212; discussion 213. doi:10.1159/000120790

54. Seth HN, Singh M (1973) Intracranial mesenchymal chondrosarcoma. Acta Neuropathol 24:86-89. doi:10.1007/bf00691422

55. Shabani S, Kaushal M, Kaufman B, Knipstein J, Lawlor MW, Lew S, Foy A (2019) Intracranial Extraskeletal Mesenchymal Chondrosarcoma: Case Report and Review of the Literature of Reported Cases in Adults and Children. World Neurosurg 129:302-310. doi:10.1016/j.wneu.2019.05.221

56. Sheth RN TS, Morcos JJ. (2009) Drop metastasis from primary intracranial mesenchymal chondrosarcoma: case report. Ann Neurosurg 9:1-9

57. Shuangshoti S, Kasantikul V (1989) View from beneath--pathology in focus. Primary intracranial mesenchymal chondrosarcoma. J Laryngol Otol 103:545-549. doi:10.1017/s0022215100156853

58. Thakar S, Dadlani R, Furtado SV, Ghosal N, Hegde AS (2013) Extensive anterior skull-base mesenchymal chondrosarcoma: unusual cause of multiple indolent masses on the forehead. Clin Neuropathol 32:393-398. doi:10.5414/NP300611

59. Tobias MD, Christoph IV, Ivo L, Andreas S, Rhoikos F, Alexander C, Schneider DT, Thomas K, Bielack SS, Ewa K (2008) Mesenchymal chondrosarcoma of soft tissues and bone in children, adolescents, and young adults. Cancer 112:2424-2431

60. Uneda A, Kurozumi K, Fujimura A, Kamiya A, Hirose T, Yanai H, Date I (2020) Intracranial Mesenchymal Chondrosarcoma Lacking the Typical Histopathological Features Diagnosed by HEY1-NCOA2 Gene Fusion. NMC Case Rep J 7:47-52. doi:10.2176/nmccrj.cr.2019-0123

61. Vergeer RA, Vink R, Avenarius JK, Driesse MJ (2012) A 71-year-old woman with an intracranial dural-based mesenchymal chondrosarcoma. J Clin Neurosci 19:1170-1171. doi:10.1016/j.jocn.2011.08.042

62. Vij M, Krishnani N, Agrawal V, Jaiswal S, Kumari N, Jaiswal AK, Behari S (2011) Cytomorphology of intraparenchymal mesenchymal chondrosarcoma in frontal lobe: report of a case. Diagn Cytopathol 39:837-842. doi:10.1002/dc.21554

63. Waga S, Matsushima M, Ando K, Morii S (1972) Intracranial chondrosarcoma with extracranial metastases. Case report. J Neurosurg 36:790-794. doi:10.3171/jns.1972.36.6.0790

64. Waliuddin A, Jamjoom AB, Thomas J (2006) Intracranial extraskeletal mesenchymal chondrosarcoma. Neurosciences (Riyadh) 11:205-209

65. Wang K, Ma XJ, Guo TX, Wang L, Li D, Hao SY, Jia GJ, Jia W, Zhang JT, Zhang LW, Wu Z (2018) Intracranial Mesenchymal Chondrosarcoma: Report of 16 Cases. World Neurosurg 116:e691-e698. doi:10.1016/j.wneu.2018.05.069

66. Wu WQ, Lapi A (1970) Primary non-skeletal intracranial cartilaginous neoplasms: report of a chondroma and a mesenchymal chondrosarcoma. J Neurol Neurosurg Psychiatry 33:469-475. doi:10.1136/jnnp.33.4.469

67. Xiao A, Li Z, He X, You C (2014) A rare tentorial mesenchymal chondrosarcoma in posterior cranial fossa: case report. Neurol Neurochir Pol 48:287-291. doi:10.1016/j.pjnns.2014.06.001

68. Yan J, Cheng J, Li H, Liu X, Zheng Y, Wang C, Luo W, Nie Y, Li Z, Pang B, Yang B (2015) Intraoperative high-field magnetic resonance imaging combined with neuronavigation-guided resection of intracranial mesenchymal chondrosarcoma in Broca's area: a rare case report and literature review. Int J Clin Exp Med 8:4697-4702

69. Yapıcıer Ö, Nanah AR, Taskapılıoglu M, Demir MK (2020) Intracranial extra-axial mesenchymal chondrosarcoma in a 16-month-old patient with a literature review of pediatric patients. Childs Nerv Syst. doi:10.1007/s00381-020-04652-0

70. Yassa M, Bahary JP, Bourguoin P, Bélair M, Berthelet F, Bouthillier A (2005) Intra-parenchymal mesenchymal chondrosarcoma of the cerebellum: case report and review of the literature. J Neurooncol 74:329-331. doi:10.1007/s11060-005-0374-1

71. Zucker DK, Horoupian DS (1978) Dural mesenchymal chondrosarcoma. Case report. J Neurosurg 48:829-833. doi:10.3171/jns.1978.48.5.0829