DIAGNOSIS OF PRIMARY POSTERIOR FOSSA TUMOURS IN THE PEDIATRIC AGE GROUP BY CT AND MRI

THESIS

Submitted for partial fulfillment of M.D. (Radiodiagnosis)

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THANK YOU!!!!

TO MY BELOVED HUSBAND

AND MY CHILDREN

WHO MEAN MORE THAN EVERYTHING TO ME

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ABSTRACT

We performed our study on 58 children (35 males and 23 females), between the ages of 3 months - 17 different pathological diagnoses 13 encountered. We compared CT and MRI findings in all cases. Our study included 23 cases of PNET (Medulloblastoma), 6 cases of pilocytic astrocytomas, 3 cases of anaplastic astrocytomas, 4 cases of plain astrocytomas, 8 cases of brainstem gliomas, 5 cases of ependymomas, 2 cases of dermoid tumours, 2 cases with A-V malformations, 2 abscesses, one case of each: teratoma, hemangioendothelioma, choroid plexus papilloma, and chordoma. 20 of these patients died during the course of the study (22 months). All cases were investigated by a CT- scan of the head, followed by MRI of the brain without and with IV Gd-DTPA. CT and MR are equally good in diagnosing the different degrees of hydrocephalus and in size estimation. CT is better in detection of tumour calcifications. MR proved be markedly advanced regarding to estimation of tumour related oedema, definition and extension of the tumour, especially if it extends into the foramen magnum and upper cervical cord. CT can detect tumoural hemorrhage, but MR is much more specific in defining the different components and age of hemorrhage. From the above mentioned facts we come to the conclusion that the although too costly for using in routine screening, it can noninvasively obtain informations that only multiple modalities and invasive procedures could previously obtain, especially in posterior fossa tumours.

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INTRODUCTION AND AIM OF THE WORK