International Journal of Medical Studies
Available online at www.ijmsonline.in

INTERNATIONAL JOURNAL OF MEDICAL STUDIES
ESTD 2015

IJMS 7(4), 50-56 (2022)
Print ISSN 2542-2766

A rare case of meningioma

Ms. Manorama Kashyap[1], Mr. Piyush Dadarao Wagh[2]

[1]*Associate Professor, Godavari College of Nursing.*

[2]*Assistant Professor, Godavari College of Nursing.*

Corresponding author: *Ms. Manorama Kashyap*

Article history
Received 02 March 2022
Received in revised form 15 April 2022
Accepted 26 April 2022
Available online 30 April 2022

ABSTRACT

Introduction: A meningioma is a kind of brain tumour that develops in the meninges, a layer that protects the Brain and Spinal cord. It is included in this group even though it is not an actual brain tumour since it has the potential to pressurise the brain, nerves, and arteries around it. Glioma is the most common kind of brain tumour, followed by meningioma.

Clinical observation: Right eye cataract causes headaches and pain in the right eye and a fever (Temperature - 101 f).

Diagnostic evaluation: CT score 8/25 on HRCT Thorax, RDW - 18.2 percent, HCT - 20%, Diagnostic Evolution, 3200 WBC/cu mm total WBC count, 15.9% blood, 5.0 million total RBCs per cubic millimetre, RDW is 18.2%, HCT is 20%, and total WBC count is 3200/cubic millimetre, Monocytes account for 2%, Granulocytes for 20%, and Lymphocytes for 77%, on an MRI brain with contrast, AST (SGOT) is 112U/L. The lateral wall of the cavernous sinus is at the ocular apex, there is a meningioma nerve sheath tumour.

Therapeutic intervention: Some treatments employed include craniotomy, Tablet Dolo 650 mg Once in Day, Capsule Felicita Once in Day, and Tablet Azee 500 mg Once in Day.

Outcomes: The patient's condition improves after treatment. His fever and headache went away, and his vision improved following surgery.

Conclusion: With a headache, vision problems, and a fever, my patient was brought to the Neuro unit. His condition has improved upon obtaining adequate therapy.

Keywords: Headache, Meningioma, Vision Problem.

This article reviewed by Dr. Ashutosh Gaur, Dr. Vaibhav. Edited by Dr. Pradeep J., Dr. S Gaur.
Available online 30 April 2022.

INTRODUCTION

Meningioma is also called a meningeal tumour; it is slow-growing cancer that affects the spinal and brain [1]. Clinical manifestations are caused by the tumour pushing against neighboring tissue and vary depending on the tumour site [2]. It develops from the membrane layers surrounding the brain and spinal cord. A vast percentage of patients show no indications or symptoms at all [3]. Seizures, dementia, speech difficulty, visual issues, one-sided paralysis, and loss of bladder control are all possible [4].

Risk factors include ionizing radiation exposure. They do not seem too linked to phone use as of 2014. They appear to be capable of forming from a wide range of cell types, including arachnoid cells [5]. If there are no symptoms, routine observation may be sufficient. The majority of cases that cause symptoms can be treated with surgery. Only about 20% of tumours return after being completely removed [6]. Radiosurgery may be possible if surgery is not an option or if the tumour cannot be entirely removed. Chemotherapy's efficacy has yet to be demonstrated. Because of their rapid growth, a small proportion of people suffer negative repercussions [7]. Approximately one out of every thousand individuals is presently affected in the United States. In the vast majority of instances, the onset occurs in adulthood [8]. They account for around 30% of all brain tumours in this group. Women are

about two times as likely as men to be impacted. In 1614, Felix Plater was the first to write about meningioma [9].

Identification of the patient: On the 25th of May 2021, a 57-year-old male was admitted to neurosurgery ward with complaints of headache, vision problems, and fever. His weight was 62 kgs and his height was 172 cm.

Medical history during this time: On the 25th of May 2021, a 57-year-old male was brought by a relative with a headache, eyesight difficulty, and fever and was admitted to the neurosurgery ward. He was diagnosed with meningioma after further testing.

Past medical history: My patient was diagnosed with covid - 19 about a month ago and was receiving treatment from a government hospital in Yavatmal. He does not have other diseases such as tuberculosis, diabetes mellitus, or hypertension.

Family history: The family consists of four people. Non-consanguineous marriage is the type of marriage that the parents have. Except for my patient, who was being admitted to the hospital, all other family members were in good health.

Previous interventions and outcomes: The patient did not receive any meningioma treatment. They proceeded to private clinics when their headaches and eye problems worsened, and he was referred to our hospital for additional treatment.

Clinical findings: Clinical findings include headaches, pain in the right eye, a high fever (temperature - 101 f), and the right eye cataract score of 7-8.

Aetiology: Meningioma symptoms and indications commonly arise gradually, and they can be very mild at first. The following clinical manifestation may occur depending on the tumour site in the brain or, in rare situations, the spine:

1. Changes in eyesight, such as double vision or fuzziness.
2. Ear ringing or loss of hearing.
3. Headaches, especially those that are worse in the morning.

4. Memory loss.
5. Odour loss.

Physical examination: The patient is thin and has a dreary appearance. There are no abnormalities discovered in the head-to-toe examination. MRI Brain with Contrast has revealed that the patient has meningioma.

Diagnostic assessment: RDW - 18.2 percent, Hb-15.9%, 5.0 million RBCs/cubic mm, total Red Blood Cell count, Hb-15.9% HCT - 20%, Total White Blood Cell count-3200/cubic mm, RDW - 18.2%, HCT - 20%, while Monocytes make about 2% of the total, Granulocytes account for 20% of the total, whereas lymphocytes account for 77%, and AST (SGOT) is 112U/L. CT score 8/25 on HRCT Thorax. Meningioma from an MRI scan of the brain with contrast.

Therapeutic intervention: Tablet Dolo 650 MG x Once in a Day, Capsule Felicita x Once in a Day, Tablet Adze 500 mg x Once in a Day and Craniotomy.

DISCUSSION

On the 25th of May 2021, a 57-year-old male from Wani was hospitalized Neurosurgery unit with the following complaints: headaches, with the help of an MRI, Right eye ache, fever (101 degrees Fahrenheit), and correct eye cataract score of 7-8 points, it was determined that the patient has a meningioma. As soon as he was admitted to the hospital, an inquiry was conducted, appropriate treatment began. Following therapy, it is critical to diagnose the disease early so that the patient does not develop complications. It is essential to take precautions. My patient improved dramatically after receiving treatment, and the treatment was continued until my final day of care [10].

A study was conducted on advanced meningioma care. In our understanding of meningiomas, there have been numerous advancements and small tweaks to their diagnosis and treatment; yet, our capacity to forecast recurrence remains limited, and medical therapy options are limited. In the United States, around a third of all primary central nervous system tumours are meningiomas. As people get older, the incidence of occurrence

increases, with a significant increase beyond 65. Females remain approximately even more likely than males to develop them, while females between the ages of 35 and 54 are believed to be three times more likely. The World Health Organization classifies meningiomas based on histological classifications of mitotic rate, cellular features of atypia, and limited incursion. Around 80% of the cases are categorized as WHO grade 1, Only 17% had anaplastic meningioma of WHO grade 2 (AM), and WHO grade 3 (anaplastic meningioma / 3MM) affects 2% of the population. Meningioma anaplastic [11].

The notion of hereditary contribution to the development of meningiomas was created due to connected familial diseases. Neurofibromatosis 2 (NF2) is the first and most well-known of these disorders; one or more meningiomas occur in 50 to 75 per cent of patients. The NF2 gene, which codes for merlin, is a tumour suppressor discovered on chromosome 22. (Known as schwannoma), in animal models, a protein promotes meningioma cell proliferation and tumour development and various downstream pathways [12]. Historically, radiation and surgery therapy have been the cornerstones of meningioma treatment. Several retrospective researches have led to this conclusion. Chemotherapy has shown a minimal effect. Nevertheless, customized drugs may become more important as our understanding of biological circuits increases. Predicting the probability of recurrence is an essential element of meningioma therapy. The amount of resection has been an essential aspect of meningioma therapy, and since the Simpson grading system's establishment in 1957, there has been a predicted repeat [13]. The tumour site has also been found interpret of recurrence. Other characteristics linked to meningioma recurrence include Male gender, absence of calcification, Males having lower levels of chromosome 1p expression, MIB-L1 expression and VEGF expression (tumour proliferation marker with a monoclonal antibody). Substantial initiatives are underway to better meningiomas molecular, genetic, and epigenetic foundation, which will undoubtedly transform the profession. The classification method will have significant consequences for future diagnosis, prognosis, treatments, and trial design [13].

CONCLUSION

On the 25th of May 2021, a 57-year-old male from Wane was hospitalized at the Neurosurgery unit with the following complaints: headaches, pain in the right eye, febrile

illness (Temperature - 101 degrees Fahrenheit), and right eye cataract 7 to 8 points with the help of an MRI, you can see what's going on within your body., it was determined that the patient has a meningioma. As soon as he was admitted to the hospital, an inquiry was conducted, and proper treatment was initiated, including a craniotomy procedure. Following therapy, it is critical to diagnose the disease early so that the patient does not develop complications. It is essential to take precautions. My patient improved dramatically after receiving treatment, and the treatment was continued until my final day of care.

DECLARATION OF COMPETING INTEREST

All authors declare no conflicts of interest.

REFERENCES

1. Meningioma - Symptoms and causes - Mayo Clinic [Internet]. [cited 2021 Nov 24]. Available from: https://www.mayoclinic.org/diseases-conditions/meningioma/symptoms-causes/syc-20355643.

2. Brain Cancer & Brain Tumor: Symptoms, Causes & Treatments [Internet]. [cited 2021 Nov 24]. Available from: https://my.clevelandclinic.org/health/diseases/6149-brain-cancer-brain-tumor.

3. Meningitis - Symptoms and causes - Mayo Clinic [Internet]. [cited 2021 Nov 24]. Available from: https://www.mayoclinic.org/diseases-conditions/meningitis/symptoms-causes/syc-20350508.

4. Cerebral Palsy: Hope Through Research | National Institute of Neurological Disorders and Stroke [Internet]. [cited 2021 Nov 24]. Available from: https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Hope-Through-Research/Cerebral-Palsy-Hope-Through-Research.

5. Meningioma - Wikipedia [Internet]. [cited 2021 Nov 24]. Available from: https://en.wikipedia.org/wiki/Meningioma.

6. Cellular (Cell) Phones [Internet]. [cited 2021 Nov 24]. Available from:

https://www.cancer.org/cancer/cancer-causes/radiation-exposure/cellular-phones.html.

7. Stereotactic radiosurgery - Mayo Clinic [Internet]. [cited 2021 Nov 24]. Available from: https://www.mayoclinic.org/tests-procedures/stereotactic-radiosurgery/about/pac-20384526.

8. The Antibiotic Resistance Crisis [Internet]. [cited 2021 Nov 24]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378521.

9. Brain Tumors (for Parents) - Nemours KidsHealth [Internet]. [cited 2021 Nov 24]. Available from: https://kidshealth.org/en/parents/brn-tumors.html.

10. Preventing Health Care-Associated Infections - Patient Safety and Quality - NCBI Bookshelf [Internet]. [cited 2021 Nov 24]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK2683.

11. Update on Meningiomas [Internet]. [cited 2021 Nov 24]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3233296.

12. Neurofibromatosis Type 2 (NF2) and the Implications for Vestibular Schwannoma and Meningioma Pathogenesis [Internet]. [cited 2021 Nov 24]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7828193.

13. Recent advances in managing/understanding meningioma [Internet]. [cited 2021 Nov 24]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5931261.