



DRUG RELATED PROBLEMS AMONG TUBERCULOSIS TREATMENT IN THE BRAIN TUMOR PATIENT AT THE SURGICAL WARD IN PGI CIKINI HOSPITAL

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ABSTRACT

Brain tumor is one of the common and frequently disease in internal medicine ward at PGI Cikini hospital. Brain tumor is one of the central nervous system tumors, either malignant and or benign⁵. Malignant tumors in structure of central nervous are containing all the neoplastic process in the intracranial spaceor the spinal canal, which have some or all of the characteristic of specific malignant processes such as those derived from nerve cells in the meninges of the brain, including tumors derived from supporting cells (neuroglia), epithelial cells of blood vessels and brain membrane⁵. Case Presentation : OS was 19 years old

man and treated in the internal medicine ward. Patient was diagnosed brain tumor. Clinical Evaluation : In this case must be considered the using of tuberculosis drugs that it can cause unwanted side effects for patients.

Keywords : *Brain Tumor, Tuberculosis, PGI Cikini Hospital.*

INTRODUCTION

Brain tumor is one of the common and frequently disease in internal medicine ward at PGI Cikini hospital. Brain tumor is one of the central nervous system tumors, either malignant and or benign⁵. Malignant tumors in structure of central nervous are containing all the neoplastic process in the intracranial spaceor the spinal canal, which have some or all of the characteristic of specific malignant processes such as those derived from nerve cells in the meninges of the brain, including tumors derived from supporting cells (neuroglia), epithelial cells of blood vessels and brain membrane⁶. Primary brain tumors showed approximately

20% of all causes of death due to cancer, of which about 20% to 40% of all patients, Metastatic cancer occurs to the brain from other places. The highest incidence in the adult brain tumors occurring in the decade of the fifth, sixth and seventh, with a high incidence occurs in men². In adulthood, many brain tumors begin from glial cells (glial cells create structures and support systems of the brain and spinal cord) and a supratentorial (located above the cerebellum cover)². Neoplastic symptoms in the brain which eventually cause death that disrupt vital functions, such as increased intracranial pressure².

Case Presentation

OS was 19 years old man and treated in the internal medicine ward. Patient was diagnosed brain tumor. Patient admitted at PGI Cikini hospital dated 26 April 2014. Patient was moving and referrals from Jaya Pura hospital. The patient felt severe headache before admission in hospital. The patient has a past medical history is Lung spots. After admitted at hospital, the patient feels severe headache, sudden pain on the forehead and back of the head, pain with dizziness, nausea, vomiting containing yellow liquid (not eating). Result of checkup clinical chemistry was increased SGPT amount 98 U/L, and blood glucose amount 408 mg/dL, and decreased calcium amount 8,4 mg/dL, while hematologic result have been increased on leukocytes with amount $14,1 \times 10^3/\mu\text{L}$, retikolosit 19 per mile, 80% segment neutrophils, monocytes 9% and experienced a 38% decrease in hematocrit, esionofil 0%, 0% rod neutrophils, and lymphocytes 11%. Drug therapy given to patients include bioxon (ceftriaxon) administered for 10 days as antibiotic to treat bacterial infection antibiotics, omeprazole was given on day 5 to day 10 and rocer (omeprazole) given on day 1 to day 4 is used to treat peptic ulcers, dexametason given for 10 days are used to suppress inflammatory and allergic disorders, and edema sereberal, brainact (citicolin) given for 10 days was used as a neuroprotective and to prevent damage / injury to the cerebral, cerebral trauma, brain surgery and cerebral infarction and improving brain blood circulation so that include ischemic stroke, torasic (ketorolac) was given on day 8 is used for the short-term management of acute moderate to severe pain after surgical procedures, vitamin K is given on day 4 to day 10 is used for vitamin K deficiency, transamin (tranexamic acid) administered on day 4 to day 10 is used to stop bleeding during surgery, farmadol (paracetamol) was given on day 5 was used to reduce the heat, actrapid given on day 5 is insulin, sistenol (paracetamol 500 mg and acetyl cysteine 200 mg) was administered on day 1 to day 3 and then given again on day 7 to day 9 is used to reduce fever, streptomycin was given on day 3 to day 4 and on day 8 to day 10, INH was given on day 1 to day 3 and day 6

to day 10, rifampicin administered on day 1 to day 3 and day 7 to day 10, pyrazinamide administered on day 1 and on day 6 to day 10, and ethambutol given on day 1 was used as a tuberculosis drug combinations, calcium gluconate was given on day 5 to day 10 for calcium deficiency, mannitol administered on day 5 to day 7 for intravenous infusion, stugeron (cinnarizin) given on day 1 to day 3 and on day 7 to day 10 for balance disorders, disorders of blood circulation in the brain, novorapid given on day 3 and day 4 is used as therapy of type I and II diabetes, ultracet (tramadol HCl 37.5 mg and paracetamol 325 mg) was administered on day 8 is used for short term treatment of acute pain, RL infusion given on day 4 to day 10 is used to restore the electrolyte balance in the circumstances of dehydration, intravenous dextrose was given on day 4 is used as fluid resuscitation and intravenous therapy for hydration purposes during and after surgery and triofusin infusion given on day 5 to day 10 is used to meet the energy needs of the total and partial, and electrolytes parenterally.

Clinical Evaluation

1.1 Drug Related Problem 1

Rifampicin is antituberculosis drugs used orally. The use of rifampicin in conjunction with Streptomycin can reduce effect from streptomycin so that treatment effect of the patient's infection was not optimal. Streptomycin dosage should be increased.

Pharmacist Intervention : when rifampicin still used with streptomycin, so that streptomycin should be increased to optimize treatment.

1.2 Drug Related Problem 2

Vitamin B complex in the treatment of tuberculosis is indicated to overcome the deficiency of vitamin B6 for the using of isoniazid. The use of Vitamin B Complex with omeprazole can cause decrease effect of vitamin B complex with inhibiting the absorption of gastrointestinal¹.

Pharmacist Intervention : The using of vitamin B complex with omeprazole must be spaced approximately 2 hours.

CONCLUSION

After the assessment of the patient's treatment. The using of rifampin with Streptomycin can cause reducing of effect Streptomycin so that Streptomycin dosage should be increased. Vitamin B complex in the treatment of tuberculosis is indicated to overcome the deficiency of vitamin B6 for the use of isoniazid. The using of Vitamin B Complex with omeprazole can decrease effect of vitamin B complex and it must be spaced approximately 2 hours.

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