

CHAPTER I

INTRODUCTION

1.1 Background

“Brain tumours are referred to a mixed group of neoplasms originating from intracranial tissues and the meninges with degrees of malignancy ranging from benign to aggressive” as stated by Dr Patricia Mckinney (2004). There have been reports of brain tumour cases annually throughout the world happening so the cases of primary and secondary brain tumour are not considered foreign or a rarity in most places. Patients experience symptoms that on the surface may seem like everyday ailments such as headache or feeling moody or highly irritable but when further inspected, a tumor is found. The manifestation of brain tumors may differ according to the type of tumor and location of the tumor itself as well as many other factors, as a result of that not every patient experiences the same symptoms as everyone else. These symptoms would often disturb their everyday life activities. Some patients may even experience silent symptoms such as a loss of balance, minor loss of vision, ringing in the ears (tinnitus) and more. When a brain tumor forms, this would lead to an increase in pressure in the head and this would cause side effects such as the headache and vomiting and several other symptoms stated above. This is in parallel to the Monro-Kellie doctrine which is stated by (Mokri, 2001) that “Monro-Kellie doctrine, or hypothesis, is that the sum of volumes of brain, CSF, and intracranial blood is constant. An increase in one should cause a decrease in one or both of the remaining two”. When there is a presence of a tumor present in the skull cavity, it competes for space with the surrounding brain tissue, blood and CSF which causes the intracranial pressure of the brain to increase, which leads to a numerous number of symptoms. This study aims to obtain the data distribution of the brain tumor among

patients of different age groups and gender admitted into RSUD Dr Soetomo, in order to create awareness among the public as an attempt to reduce mortality related to CNS cancer. This topic was chosen because of the increasing incidence in the number cancer of the brain and CNS worldwide. The author (Miranda-Filho et al., 2016) has stated that “a marked annual increase was found in many South American countries: in Brazil, Colombia, and Ecuador with mean increases of 3.3%, 1.3%, and 1.1% per annum, respectively. Two countries in eastern Europe (Poland and the Russian Federation) and one in southern Europe (Slovenia) also exhibited increasing average annual rates, of 2.7%, 1.9%, and 2.6%, respectively”. Therefore, there should be more research regarding the data distribution of brain tumor incidences in general.

The most common brain tumor types are metastases (from lung cancer, breast cancer and melanoma), astrocytoma, glioblastoma and meningioma. This research which is conducted in Surabaya aims to observe the data distribution of various types of brain tumor that is prevalent in RSUD Dr Soetomo. A research conducted by (Porter et al., 2010) which states that “The female prevalence rate (264.8 per 100 000) was higher than that in males (158.7 per 100 000). The averaged prevalence rate for malignant tumors (42.5 per 100 000) was lower than the prevalence for nonmalignant tumors (166.5 per 100 000)”. This indicates that brain tumor cases appears to be higher in females than males in the United states and the prevalence of non malignant brain tumor is higher than malignant tumors as well. Based on this, it gender and age could be factors that influence the distribution of brain tumor cases in the population.

1.2 Research Question

To know the profile of brain tumor cases in RSUD Dr Soetomo.

1.3 Objectives

Based on the issues that are written above, the objectives of this research are:

1.3.1 General objectives

The General objectives of this research is to describe the profile of brain tumor cases in RSUD Dr Soetomo within the period of 2015-2018.

1.3.2 Specific objectives

To know the profile of brain tumour cases in different age groups and gender that are reported at RSUD Dr. Soetomo.

1.4 Research Benefits

1.4.1 Research Benefits for the Institution

The research conducted is expected to provide information about the profile of the tumor cases amongst patients in RSUD Dr Soetomo.

1.4.2 Research Benefits for the Society

This research is expected to improve the quality of life of patients for the upcoming generations by reducing the morbidity and mortality rate. People from different walks of life are able to educate themselves with the source of information available from this research. This research also aims to provide information for the medical professionals and students regarding the brain tumor cases in RSUD Dr Soetomo from 2015-2018.