



Abstract

High grade gliomas include WHO grade III and IV of primary brain tumours. The incidence of these tumours is

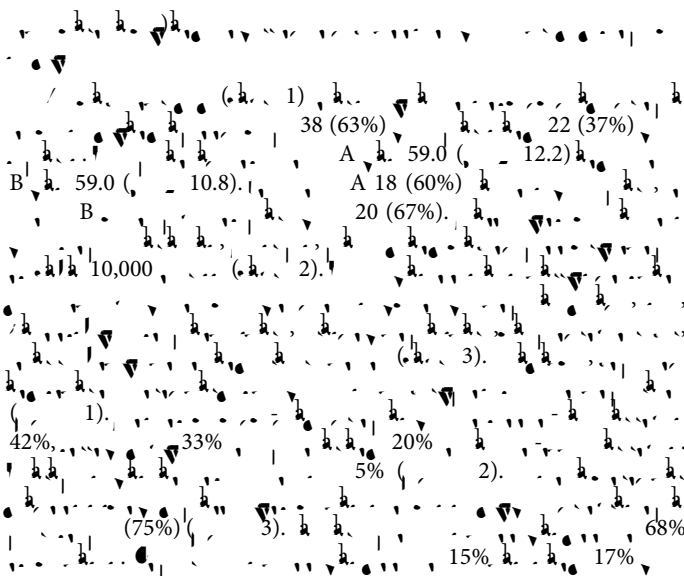
**Keywords:** gliomas; WHO grade III and IV; primary brain tumours; incidence

Introduction

High grade gliomas include WHO grade III and IV of primary brain tumours. The incidence of these tumours is increasing worldwide. In 1970, the incidence was 1.5 per 100,000 per year. In 1999, it was 2.5 per 100,000 per year. In 2005, it was 3.6 per 100,000 per year. The incidence of gliomas is 79.1% in males and 27.4% in females. The incidence of gliomas is 4.5% in children. The incidence of gliomas is 6.6% in adolescents. The incidence of gliomas is 13.1% in young adults. The incidence of gliomas is 12.1% in middle-aged adults. The incidence of gliomas is 15.1% in older adults. The incidence of gliomas is 10.1% in the elderly. The incidence of gliomas is 15.1% in the very elderly. The incidence of gliomas is 2.1% in the population aged 65 and over. The incidence of gliomas is 3.6% in the population aged 65 and over (1999-2005).

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Age (years)	Male	Female	Total
18 – 30	1 (2.6)	0 (0.0)	1 (1.7)
31–40	2 (5.3)	2 (9.1)	4(6.7)
41–50	7 (18.4)	5 (22.7)	12 (20)
51–60	11 (28.9)	5 (22.7)	16 (26.6)
61–70	14 (36.9)	8 (36.4)	22 (36.6)
71–80	2 (5.3)	2 (9.1)	4 (6.7)
	1 (2.6)	0 (0)	1 (1.7)
<b>Total</b>	<b>38 (100)</b>	<b>22 (100)</b>	<b>60 (100)</b>
<b>Mean (years)</b>	<b>59.1 ± 11.3</b>	<b>59.2 ± 11.8</b>	<b>59.1 ± 11.4</b>
<b>Range (years)</b>	<b>30–85</b>	<b>35–80</b>	<b>35–85</b>

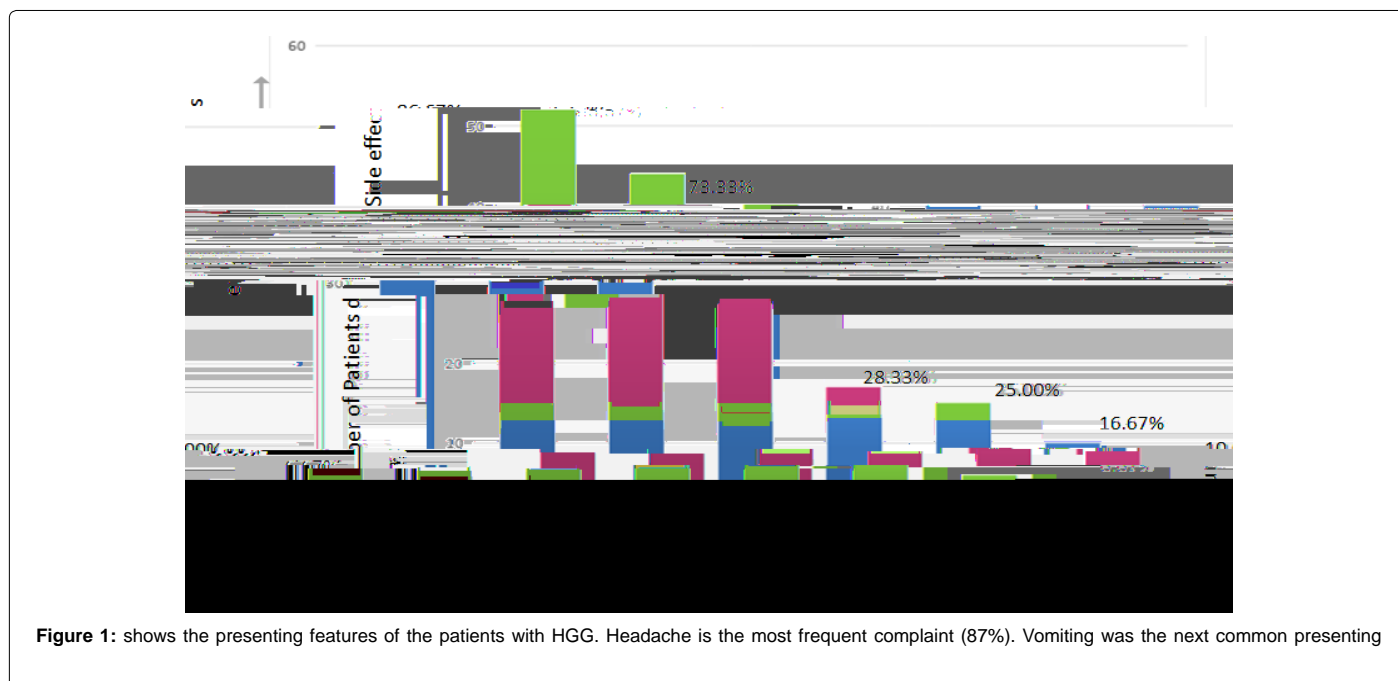
**Table 1:** Age and sex distribution, Total sixty patients of high grade glioma were included in the study. Thirty-eight (63%) were males and twenty-two (37%) were females. Majority of cases aged more than 50 years (72%), in both sexes (74 and 68% among males and females respectively). (Within the Table, Percentages are mentioned within parenthesis).

Variable	Data	Frequency	Percentage
Residence	Rural	36	60.0
	Urban	24	40.0
Marital status	Single	0	0.0
	Married	41	68.4
	Widowed	17	28.3
	Divorced	2	3.3
Religion	Islam	52	86.6
	Hinduism	7	11.7
	Christianity	1	1.7
Monthly income (Taka)		17	28.3
	5,000–10,000	28	46.7
		15	25.0

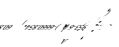
**Table 2:** Demographic variables, It shows some basic demographic variables of the patients in this study. Majority of the patients were from rural areas, Muslims, married and having monthly income of Taka 10,000 or less.

Variables	Group A RT plus TMZ	Group B RT	p value	
Age (years)	59.0 ± 12.2	59.0 ± 10.8	0.30*	
Sex	Male	18	20	0.78**
	Female	12	10	
GCS		28	27	**
		2	3	
		2	1	
Haemoglobin (gm/dL)	11.4 ± 1.5	11.5 ± 1.9	0.63*	
Total leukocyte count (1000 per cu mm)	7.5 ± 1.5	7.2 ± 1.5	0.80*	
Platelet count (100,000 per cu mm)	2.1 ± 0.6	2.0 ± 0.5	0.78*	

**Table 3:** Comparison of baseline variables between the two groups, it shows some difference between the two groups in respect of age, sex, Karnofsky performance scale, Glasgow coma scale, haemoglobin level, total leukocyte count and platelet count. (Within the Table, Percentages are mentioned within parenthesis).



**Figure 1:** shows the presenting features of the patients with HGG. Headache is the most frequent complaint (87%). Vomiting was the next common presenting



... (p < 0.04) (Table 4).  
A ... B, (73% ... 43%) ...  
... (p = 0.04) (Table 4).  
... A, ... (40% ... 33%), ... (60% ... 33%)  
... (53% ... 27%)  
... A, ... (>0.05) (Table 5).

... A ... B, B ... (Table 6).

### Discussion

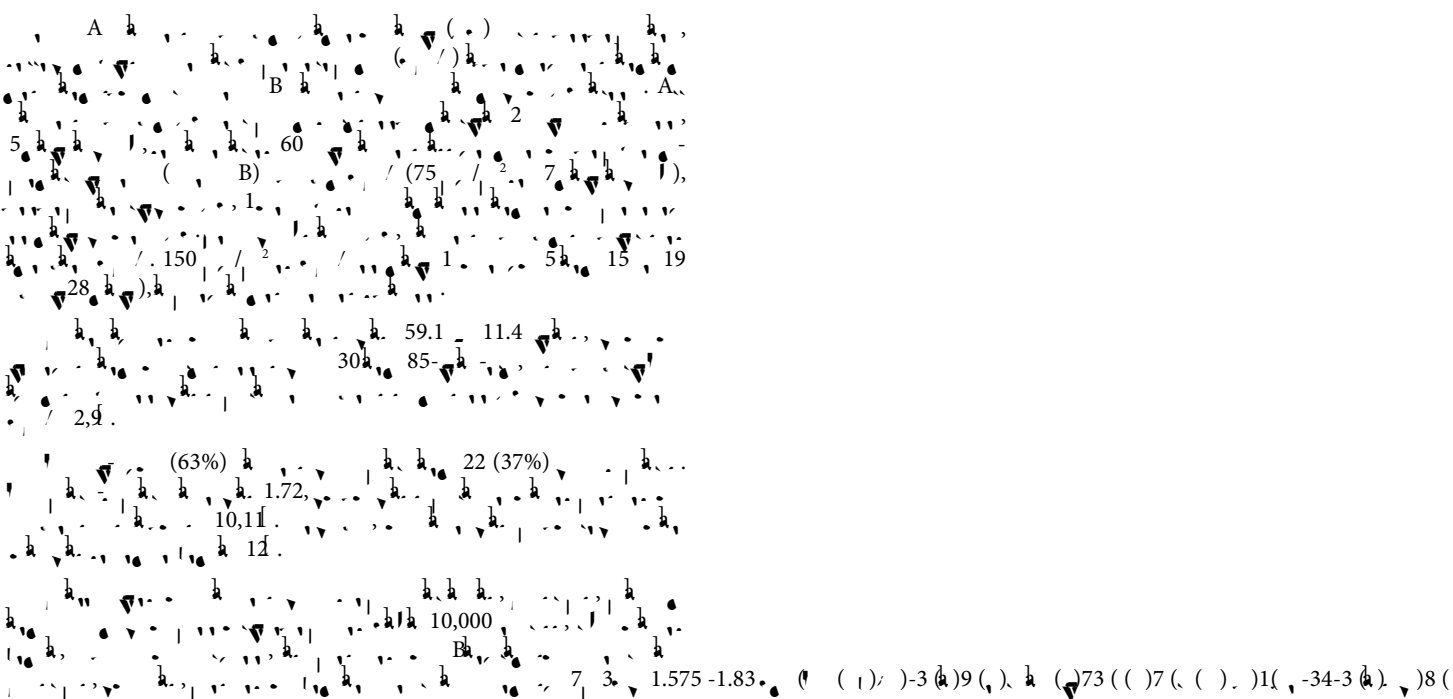
A ... 60 ...

Toxicity		Group A RT plus TMZ (n <sub>1</sub> =30)	Group A RT (n <sub>2</sub> =30)	Relative risk	95% CI	p-value
Nausea	Yes	28(45)	23(22)	4.26	0.81–22.53	0.15*
	No	2(55)	7(78)			
Vomiting	Yes	26(48)	17(22)	3.76	1.04–13.65	0.07*
	No	4(52)	13(78)			
Headache	Yes	24(21)	22(15)	1.46	0.44–4.86	0.76*
	No	6(79)	8(85)			
Constipation	Yes	15 (50)	13(43)	1.31	0.47–3.62	0.80*
	No	15 (50)	17(57)			
Alopecia	Yes	18 (60)	2(7)	14.00	2.81–157.15	
	No	12 (40)	28(93)			
Skin reaction	Yes	3(10)	0(0)	7.76	0.38–4.86	0.24*
	No	27(90)	30(100)			
Otitis externa	Yes	2(7)	4(14)	0.46	0.08–2.75	0.67*
	No	28(93)	26(86)			

\*Fisher's exact test

**Table 6:** Non-haematological toxicity, It compares the proportions of non-haematological toxicities between the two groups. Nausea, vomiting, headache, constipation and skin reaction were more common in radiotherapy plus temozolomide group, whereas otitis externa was more frequent in radiotherapy

(Within the Table, Percentages are mentioned within parenthesis).



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