

characteristics between developing countries like Saudi Arabia and Iraq and developed countries like Australia. A non-significant trend of earlier age of presentation among females was shown in the current study. By reviewing the literature, no obvious explanation was found which prompted the need for further study to shed the light on this topic.

Table 8. Distribution of the study group by type of stroke and residency

Place of Residence	Stroke	
	No.	%
Baghdad	44	63.8
Kut	8	11.6
Diyala	5	7.3
Anbar	3	4.3
Missan	2	2.9
Other	7	10.1
Governorates		
Total	69	100

The current study showed that ischemic stroke is more common than hemorrhagic type which is consistent with other studies^(5, 9-11).

Stroke incidence as estimated from a state-wide hospital discharge database emphasize that boys carry higher risk for all stroke types than do girls⁽¹¹⁾. A Canadian study⁽¹³⁾ found a 3.6:1 male: female ratio for neonatal Cerebral SVT. Saudi Arabian⁽¹⁴⁾ study found a male: female ratio of 1.6:1 for neonatal arterial ischemic stroke. A population-based Californian study relying on administrative data found that boys had a higher incidence of childhood (non-neonatal) stroke than girls for both ischemic and hemorrhagic stroke types with a relative risk of 1.25 (95% CI, 1.11 to 1.40) for ischemic stroke⁽¹²⁾.

Normann et al provide provocative evidence that the male child's risk for arterial ischemic stroke or cerebral sinovenous thrombosis is linked to androgen availability⁽¹⁵⁾.

Specifically, elevated plasma levels (>90th percentile for age and gender) of the principal

circulating androgen, testosterone, were found to be associated with a 4-5-fold increased risk of cerebrovascular disease after adjustment for pubertal status, cholesterol, and hematocrit. Furthermore, among the boys, there was a dose-response relationship such that for each 1nmol/l increase in testosterone level, the odds of stroke were increased. This novel finding is the first to address androgens in pediatric stroke and is consistent with the rather sparse literature that androgens impact ischemic outcomes and mechanisms of brain damage⁽¹⁶⁾.

A significant trend that patients with hemorrhagic stroke tend to present at earlier ages than ischemic stroke and this was the same trend when stratified for sex, yet on reviewing the literature no explanation for this significant trend was found.

The risk of stroke in children is greatest in the first year of life and peaks during the perinatal period⁽¹⁷⁾. The current study showed that more than half of stroke events in children present at the infancy period (the hemorrhagic type is over-represented in the first year (82.3%) in comparison to the ischemic type (35%)). These results were confirmed in a previous study⁽¹⁸⁾ which showed large proportion (36%) of ischemic stroke events to occur in patients less than 12 months of age.

Symptoms like vomiting, bulging fontanel were common features in patients with hemorrhagic stroke and that's consistent with other studies^(6,19,20). Weakness was the main presenting feature in 6 (35.3%) patients with ischemic stroke and in none of those with hemorrhagic stroke and that's similar to what have been reported in other pediatric studies^(1,6), but this proportion was well below what other studies reported because this table view constellation of presenting symptoms that prompted the family to seek medical advice rather than the signs and symptoms that were recorded after examination by the physicians.

This study found that seizure was the most common presenting feature in the setting of acute childhood stroke (76%) with non-