

### INTRODUCTION

Sydenham chorea (SC) is the definition of rapid, involuntary, short-term, irregular movements involving the distal limbs, face and tongue that occur after Acute Rheumatic Fever (ARF) secondary to throat infection caused by group A beta-hemolytic streptococci. However, it can also give clinical findings with some emotional conditions such as mood disorders. Deterioration occurs in the patients' skills such as speaking, walking, writing, and buttoning, which affect the quality of their daily life. This can sometimes last for weeks. Although the incidence of ARF has decreased, it is still an important public health problem as a cause of morbidity in developing countries including our country. There are primary and secondary prophylaxis protocols for ARF, but a consensus has not yet been established for the treatment of SC. In the treatment of chorea, in addition to ARF treatment, treatments such as bed rest, haloperidol, carbamazepine, valproic acid, steroid, intravenous immunoglobulin and plasmapheresis are applied.

### OBJECTIVES:

Although the incidence of SC has decreased significantly, especially in developed regions, it remains the most common cause of acute chorea in children worldwide. Our aim is to contribute to the literature by retrospectively examining the demographic, clinical, laboratory and imaging findings, recurrence and treatments of the patients.

### MATERIALS AND METHODS

The study was carried out with the participation of 268 SC patients who applied to the Erciyes University Pediatric Neurology clinic between 1998-2020. All data were anonymized before analysis. Appropriate statistical tests were performed including normality, descriptive, prescriptive, categorical, subgroup and continuous data analysis in PRISM (Graphpad Software Inc., Version 9.0.1.). A p-value < 0.05 was considered significant.

### RESULTS

The female/male ratio of the patients was 2:1, and the mean age was 11,3±2,3. The rate of those who heard a murmur at the first admission of the cases was %57,8. Generalized chorea was found in %73,8 of the cases, and hemichorea in %26,2. Carditis was not detected in %3 of the cases. The most common lesion in the ECO findings of the patients was mitral regurgitation with a rate of %96.

		Recurrence				p
		Present		Absent		
		n	%	n	%	
Gender	Male	9	20.9	81	36	0.076
	Female	34	79.1	144	64	
Family history	Present	0	0	10	100	0.158
	Absent	43	100	215	0	
Consanguinity between parents	Present	5	8.9	25	30.1	0.163
	Absent	51	90.9	58	69.9	
Location	Village	6	13.9	45	20	0.354
	City	37	86.1	180	80	
Generalized chorea	Present	28	14.1	170	85.9	0.16
Right hemichorea	Present	6	15.7	32	84.3	
Left hemichorea	Present	9	28.1	23	81.9	
ASO	Normal	3	9.7	16	12.9	0.624
	Abnormal	28	90.3	108	87.1	
Sedimentation	Normal	22	66.9	93	55.1	0.216
	Abnormal	11	33.3	76	44.9	
CRP	Normal	25	80.6	86	68.8	0.192
	Abnormal	6	19.4	39	31.2	
Carditis	Present	42	97.7	218	96.9	0.781
	Absent	1	2.3	7	3.1	
MRI	Normal	22	75.9	40	67.8	0.435
	Abnormal	7	24.1	19	32.2	
Application deadline (Days)		51.3 ± 84.3		21.9 ± 39.8		<0.001
Duration of treatment at first disease (Days)		206 ± 182.9		132.3 ± 146.8		<0.001

The mean drug response time of the patients was 10,5±6,4 days. The mean duration of treatment at the first disease was 144,2±155,2 days. The mean treatment duration (with or without relapse) in patients with haloperidol monotherapy was 146,4±176,1 days, while the mean treatment duration was 280,9±263,2 days in patients using single or combined drug regiment other than haloperidol (**p=<0.001**).

The mean duration of treatment for non-relapsed patients was 132,3±146,8 days, while the mean treatment time for relapsed patients at the first disease was 206±182,9 days (**p <0.001**).

Recurrence was observed in %16,1 of the cases. The first recurrences were seen after a mean of 13,6±20,6 months. A significant correlation was found between the time between the onset of symptoms and admission to the hospital and the recurrence of chorea. It was determined that the frequency of recurrence increased as the application time increased (**p<0.001**).

There was no statistically significant difference for recurrence between relapsed and non-relapsed patients about age, gender, family history of SC, consanguinity between parents, place of origin of the cases, presence of generalized or hemichorea, presence of carditis, CRP/ASO/ESH elevation, normal or abnormal MRI.

### CONCLUSIONS

Sydenham's chorea is still an important public health problem in our country. It has been concluded that the frequency of relapse increases as the time to apply to the hospital increases, the duration of treatment in the first attack of patients with relapse is longer than those who do not relapse, and the haloperidol treatment is more effective in terms of treatment time compared to other treatments.

### REFERENCES

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