

CLINICAL OBSERVATION OF SO-CALLED O.D.
(ORTHOSTATIC DYSREGULATION)
AND EPIPHARYNGITIS

BY

Sinsak HORIGUTI and Yasushi OKUBO*

ABSTRACT

12 cases of so-called Orthostatic Dysregulation which was apparently caused by inflammation of the nasopharynx were observed and treated.

The effect of the local treatment for epipharyngitis suggested an intimate relationship between epipharyngitis and so-called Orthostatic Dysregulation.

The nasopharyngeal inflammatory condition evokes the attacks of Orthostatic Dysregulation and patients were completely cured by nasopharyngeal treatment.

The manifest and latent epipharyngitis is considered to be a very important factor for the occurrence of Orthostatic Dysregulation.

INTRODUCTION

Child patients with dizziness are occasionally referred to our clinic for evaluation of labyrinthine disfunction. Among these cases however, we encountered an interesting disorder which is known as "Orthostatic Dysregulation", Dizziness due to this disorder is not of a rotatory character but a swinging sensation. Patients often state that objects seem to come close and fade away. At the same time, patients feel a heavy sensation of the head, photophobia, difficulty in concentration in gazing, or eye-fatigue. Most patients feel lethargic often in the morning, and feel lethargic to the extent of affecting their physical activity. Such patients were treated for local epipharyngeal application only, and of 4 exemplar cases are taken. The object are diagnosed as O.D. (Orthostatic Dysregulation) positive after the standard of judgement which was presented by Prof. Takatsu as shown in the table No. 1.

The Epipharyngitis passes often showing without any subjective or objective changes. Even the hyperemia of the epipharynx wall can also be overlooked by the routine visual testing methods such as posterior rhinoscopia or direct epipharyngoscopia. The only method of accurate diagnosing Epipharyngitis is done by inserting cotton applicator into the epipharyngeal cavity from nasal or pharyngeal side. If there exists inflammation, severe

* 堀口申作, 大久保仁: Department of Otolaryngology, (Chief: Prof. S. HORIGUTI) School of Medicine, Tokyo Medical and Dental University (Tokyo Ika Shika Daigaku)

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pain on contact will be complained by the patient and sometimes bleeding from epipharynx will be observed.

The existence of inflammation will also be certified from the findings of smear which is simultaneously taken with the same cotton applicator (exfoliative epithelium, wandering cells and bacteria).

Thus, comparing the process of both diseases the relationship between O.D. and Epipharyngitis is certified.

CASE OBSERVATION

CASE NO. 1 (M.M. Male, Aged 12)

Chief complaint: Tendency to have dizzy-spells.

Symptoms: Since a year ago, he developed dizzy spells and was told by a pediatrician that he had O.D. (cf. Table No. 1)

Table 1. Standard of Judgment in Orthostatic Dysregulation

MAJOR SYMPTOMS:

- A) Tendency to have dizziness.
- B) Nausea when standing for any considerable length of time and falling down occasionally.
- C) Nausea at slightest provocation such as sight of waste food, unpleasant odors, news or sight.
- D) Tendency to unnatural shortness of breath or palpitation in movement.
- E) Lethargic in the morning.

MINOR SYMPTOMS:

- a) Wan appearance.
- b) Poor appetite.
- c) Frequent colic.
- d) General malaise and easy fatiguability.
- e) Frequent headaches.
- f) Apprehensiveness and a tendency to get motion-sickness.
- g) Decrease in pulse pressure by standing test (16 mmHg).
- h) Decrease in contracted blood pressure by standing test (21 mmHg).
- i) Increase in pulse rate by standing test (21 per minute).
- j) Increase/decrease in standing test by E.K.G. T III (0.2 mV).

JUDGMENT:

Following three cases are to be considered as O.D.

- (1) One major symptom and three minor symptoms.
 - (2) Two major symptoms and one minor symptom.
 - (3) Three or more major symptoms.
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Major symptoms:

- A) Tendency to dizziness.
- C) Nausea at slightest provocation such as sight of waste food and unpleasant odors.
- E) Lethargic in the morning.

Minor symptoms:

- a) Wan appearance.
- b) Poor appetite.
- d) General malaise and easy fatiguability.
- e) Frequent headaches.
- f) Apprehensiveness and a tendency to get motion-sickness.

Past history: Habitual tonsillitis. Appendectomy at the age of 10.

E.N.T. findings: Ear drum normal. Nose had a slight engorgement present in the inferior turbinate. Enlargement of tonsils (Grade II). Larynx normal. Epipharynx had a slight engorgement in the posterior edge of the nasal septum and inferior tubinates, and the back of the soft palate.

X-ray of mastoid and neck: No pathology seen.

Hearing test: Normal. (Fig. 1)

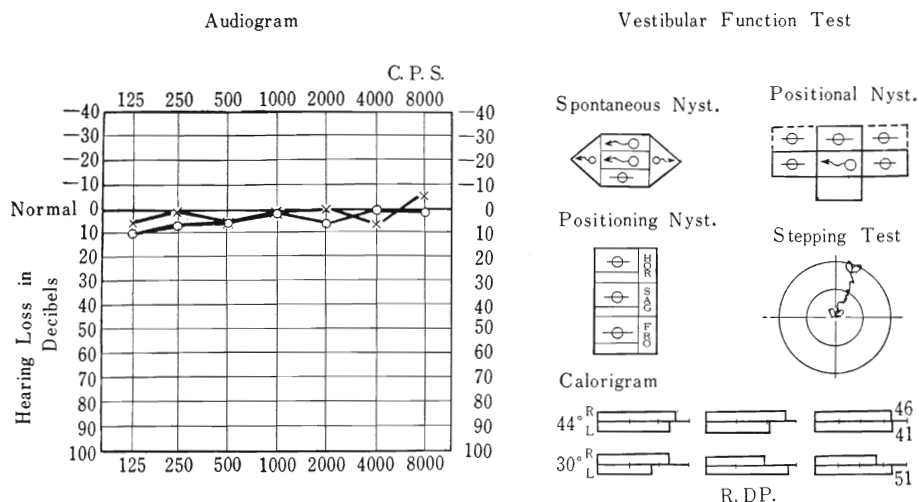


Fig. 1

Vestibular function test: Tonus reaction of upper normal. Caloric test: Hallpike's method showed Directional Preponderance to the right, otherwise within normal limits.

Smear examination: Inflammatory changes were seen to be in the middle degree.

Treatment: Local application of 1/5000 adrenalin with 1% ZnCl₂ solution of nasopharynx were given. Patient complained of pain on contact; however bleeding was not seen.

Course: (Fig. 2). Temporal pain with burning sensation in the occipital area was reported when the topical application of solution was carried out. This pain lasted for 3 hours. After the disappearance of tem-

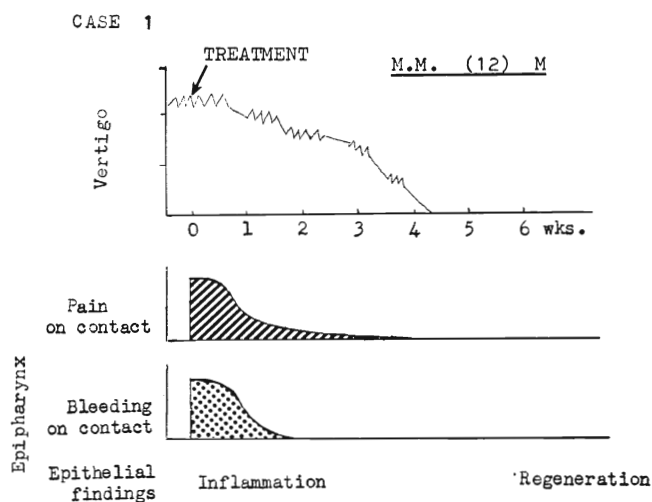


Fig. 2

porary discomfort, patient felt well and his head felt lighter. Gradual disappearance of this pain was noted in a week's period of treatment and unsteadiness also disappeared. In the third week of treatment there were no complaints; and no recurrence was reported after 8 weeks of observation. Subjectively, he feels better and is attending school with good spirits. Appetite became improved.

Major symptoms: A.E. improved.

Minor symptoms: a.b.d.e. improved.

CASE NO. 2 (S.A. Male, Aged 8)

Chief complaint: Dizziness and blurred vision.

Symptoms: He developed dizziness 4 years ago when suffering from a cold. This dizziness became worse when his body was in the lateral position and noted during physical exercises at school. No vomiting, tinnitus, or difficulty in hearing were noted, however eye-fatigue after reading at night was experienced. He was seen at several hospitals and told that his dizziness might be due to orthostatic low blood pressure.

Past history: Nothing contributing. Had episodes of Gastrointestinal disturbance.

E.N.T. findings: Nothing remarkable. Engorgement was seen in the posterior superior portion of nasal septum and the back of soft palate. Enlargement of tonsils Grade II.

X-ray: Normal findings.

Hearing test: Normal (Fig. 3).

Vestibular function test: Stepping test: 15° deviation to the right was

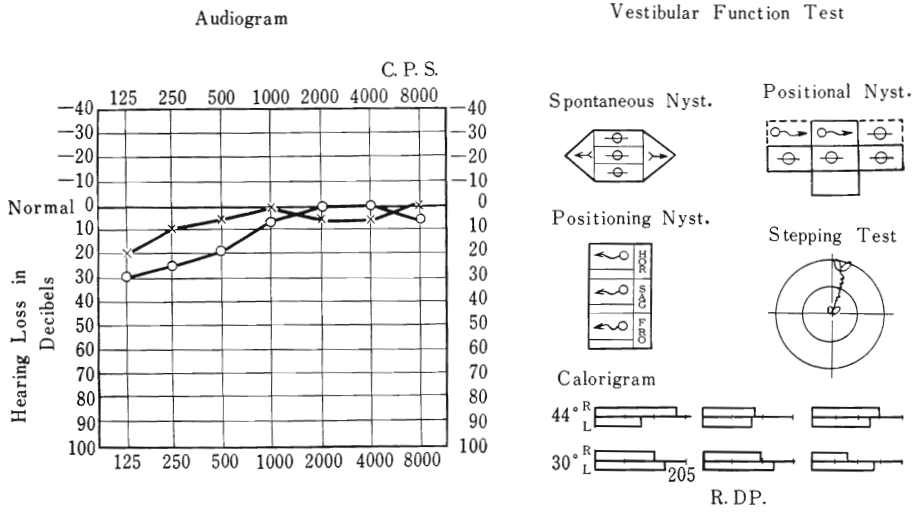


Fig. 3

seen in 50 steps. Nystagmus: Positional nystagmus was present. Caloric test: Directional Preponderance to the left was noted, (Number of beat and maximum intensity).

Treatment: Local application of 1/5000 adrenalin with 1% ZnCl₂ solution.

Course: (Fig. 4). Bleeding after topical application decreased remarkably on the 3rd day of treatment and completely disappeared by the end of the first week of treatment. Pain also became less severe after 10 days

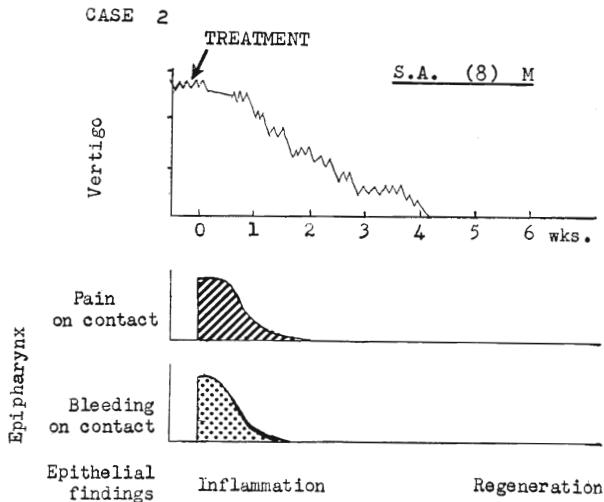


Fig. 4

of treatment and was no longer present on the second week of treatment. Dizzy sensation improved after the 4th day of treatment but attacks of dizziness occurred on every 3rd day. Dizziness was no longer present after a month's treatment.

CASE NO. 3 (Y.T. Male, Aged 6)

Chief complaint: Urticaria.

Symptoms: About 2 years ago he began to have generalized urticaria without contributing causes. This skin rash disappeared spontaneously within 3 to 4 days. This urticaria occurred mostly in the evening and night. He was referred to our clinic by a pediatrician for consultation.

Major symptoms:

- A) Tendency to dizziness.
- B) Nausea when standing for any considerable length of time and falling down occasionally.
- E) Lethargic in the morning.

Minor symptoms:

- e) Frequent headaches.
- f) Tendency to get motion-sickness.
- g) Decrease in pulse pressure by standing test (16 mmHg).
- i) Increase in pulse rate by standing test (21 per minute).

E.N.T. findings: Normal ear drums. Pharynx, enlargement of tonsils (Grade I). Epipharynx: Engorgement was present in the back of soft palate and the posterior portion of the inferior turbinates.

Hearing: Normal.

Vestibular function test: Within normal limits.

Smear test: Remarkable morphological changes were seen in the desquamated epithelial cells. Increased number of erythrocytes were present.

Treatment: Local treatment.

Course: (Fig. 5). Severe pain with bleeding was noted when the 1% ZnCl₂ solution was applied in the epipharynx but disappeared gradually on the 1st week of treatment. On the 10th day of treatment, urticaria attacks which had been seen and lasted for 3 or 4 hours every night disappeared. At the same time, local pain with bleeding became less severe. He developed urticaria 2 months later when the bleeding reappeared. This recurrence of urticaria improved after a week's treatment. He developed urticaria again a month later when he ate shrimp and crabmeat. Local bleeding was then again present. Urticaria improved after the disappearance of bleeding.

Major and minor symptoms of O.D. improved.

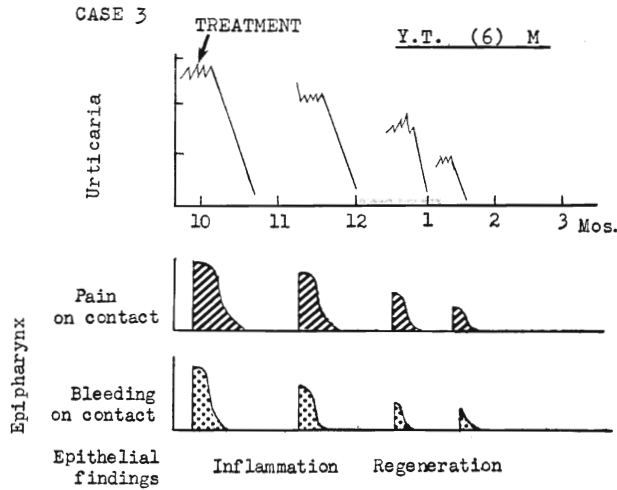


Fig. 5

CASE NO. 4 (S.Y. Male, Aged 10)

Chief complaint: Slight elevation of temperature and occipital headache.

Symptoms: Since the age of 7 he tended to suffer from frequent cold and slight elevation of temperature (37°C) and occipital headache persisting for a month. One year ago, chest X-ray and physical examination were given but no pathology was found. Past history revealed plastic repairs for a harelip and cleft at the age of 3 and 5 respectively. Adenoidectomy was also performed. 6 months ago, he was brought to our clinic complaining of

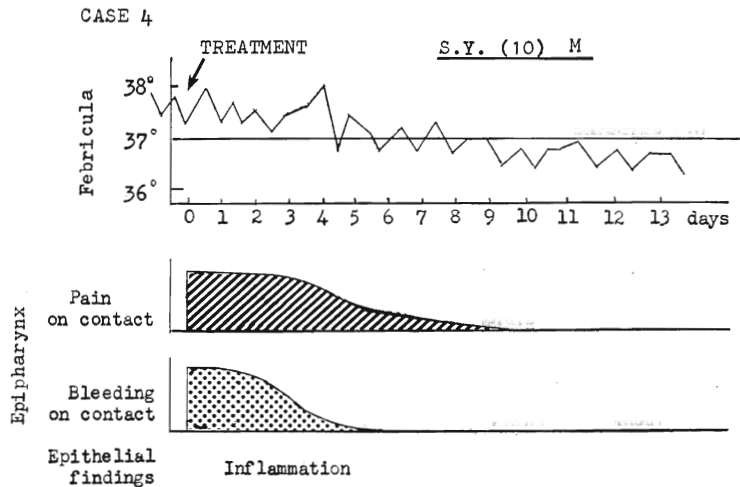


Fig. 6

general malaise, poor appetite, occipital headache, and a slight elevation, in temperature.

Findings: Facial appearance, wan; relatively underdeveloped; Drums cloudy and retracted. Nose had slight mucous present in both nostrils. Pharynx and larynx were normal.

Smear examination: Inflammatory findings was seen. (middle)

Treatment: Local treatment.

Course: (Fig. 6). Severe contact pain with bleedings were noted when the 1% ZnCl₂ solution was applied in the epipharynx. Bleeding disappeared after one week treatment but pain persisted for a while. Occipital headache improved on the 5th day of treatment, and general malaise and poor appetite improved after 15 days of treatment. Temperature returned to normal on the 5th day of treatment. He is presently well and enjoying daily normal life.

DISCUSSION

In the same way, twelve cases of O.D. children were treated. The results

Table 2

Name	Sex	Age	Chief Complaint	Symptoms of O.D.	Pain	Bleeding of Epipharynx on Contact	Epithelial Findings	Treatment	Effect
M.M.	M	12	vertigo	A.C.E. a.b.d.e.f.	++	++	middle	8 weeks	under observation
S.A.	M	8	vertigo	A.B.D. b.e.	+++	+	—	one month	cured
Y.T.	M	16	urticaria	A.B.E. e.f.g.i.	++	++	middle	4 month	//
S.Y.	M	10	febricula	E. a.b.d.e.	+++	+++	middle	15 days	//
F.T.	M	9	headache	B.C.E. d.f.	++	+++	severe	one month	//
O.M.	M	10	headache	B.C.D.E. a.b.d.e.	++	++	middle	104 days	//
H.K.	M	9	headache	A.B.E. a.b.d.e.	++	++	middle	125 days	//
T.U.	M	8	asthma	D.E. b.c.e.	+++	+++	severe	one year	under observation
E.K.	M	8	asthma	B,D,E. a.b.e.	++	+++	severe	52 days	cured
K.O.	M	10	rheumatic fever	D,E. b.d.e.	++	+	middle	46 days	rather improved
K.K.	M	9	rheumatic fever	B. a.b.d.e.f.	++	++	middle	7 weeks	cured
A.T.	F	16	articular rheumatism	A,B,D. e.	+++	+++	severe	68 days	rather improved

are shown in the Table No. 2. These cases were at first all complicated with latent but severe Epipharyngitis which was only discovered by inserting the cotton applicator into epipharynx. In all cases, the general application of medicine was completely suspended, and only local treatment of Epipharyngitis was carried out. In most cases, the complaint of O.D. such as fainting, asthma, urticaria, slight elevation of temperature, rheumatic fever and headache are completely removed after this local treatment.

SUMMARY

Several cases of O.D. were reported. Severe Epipharyngitis was discovered in these cases and good results were obtained by the local treatment of Epipharyngitis only. O.D. cases are often complicated by asthma, slight elevation of temperature, headache, urticaria or rheumatoid arthritis. We feel that these complications seem to be related to the epipharyngeal inflammation. The etiology of O.D. has not been fully understood, but a previous hypothesis has been given to be disfunction of autonomic nervous system. However, our clinical evidence of improving these unsettled disorders by the local treatment of Epipharyngitis suggests an addition to the theory on the mechanism of this disorder.

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