

The Supposition of the Mechanism of SSRI to the glossodynia as Non-Organic-Pain in the Mouth and Face Area

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These contents obtain the approval of Japanese Red Cross Takayama Hospital Ethics Committee and it is considering sufficiently about the ethical models such as the protection of the privacy. There is not a state of the conflict of interests (COI).

【 Key Words 】Glossodynia, SSRI, Escitalopram, 5-HT, Phasic dopamine, β -endorphin

I Introduction

At the life-support of the animal which contains a human being, it is important as for the feeling of pain, the pressure of the postoperative pain, neuropathic pain or pschosocial background in addition to the inflammation are merely influenced by more than one piece of cause.

The glossodynia is not a little non-organic-pain in the clinical condition which is near the hypochondriasis (it is the C article of the physical symptoms disorder in DSM-5).

On the other hand, the remission or disappearance of the chronic pain by tricyclic antidepressants (TCA) have been always accepted in the clinical scene. In recent years, new anti-depressants of SNRI or SSRI and so on became clinical and available in Japan and the width of the choice spread. However, there is little effective report to the chronic pain in Japan to SSRI that an adaptation disease does not have an effect.

We report because it verified the effectivity of Escitalopram of SSRI for the glossodynia which is accompanied by an anxiety disorder or depressive state. Moreover, the production of effect is added considering about the permitted action mechanism from the early stage.

II Methods

From 2013 in 3 years and half-year of the pasts, we treated with Escitalopram of SSRI for 45 female and 5 male of the glossodynia which complained of the non-organic-pain. The evaluation used Visual Analogue Scale (VAS).

It evaluated the effectivity of Escitalopram on retrospective study.

It used corresponding t - test (improvement rate) and χ^2 - test (the comparison among the groups) which is compatible with the significant test for it and it judged that there was a significant difference about $p < 0.05$.

III Results

The patients who could not continue a treatment until 2 week after was 10 examples on not coming to hospital: 5 cases, nausea 3 and vertigo 2 cases.

Patient characteristics: About 90 percent of women, it is 30 % of depressed states, 65 % of anxiety disorder. There were many 70 percent and old patients in above the sixty something within an average of 65.7 years old.

VAS score was improved from the early stage; start of therapy 6.45 ± 1.97 , after 1 week administration of Escitalopram 5.6 ± 2.32 ($p=0.008$), after 2 week administration of

Escitalopram 2.65 ± 2.57 ($p=2.1 \times 10^{-12}$)

Remission rate (VAS=0) of the glossodynia was increased from the early stage on 1W: 5%, 2W: 42.5%, 4W: 75%.

IV Discussion

Escitalopram (5 to 20 mg activity) of SSRI had an effect on the patients of glossodynia with anxiety disorder or depressive state. About half patients were disappeared from glossodynia within 2 weeks early and 75% of patients were disappeared from glossodynia within 4 weeks¹. Escitalopram of SSRI may be useful for chronic pain of the head and neck area such as the glossodynia symptom and the atypical-facial-pain. It was effective for the cases that SNRI was ineffective². It is said that there is a pain reduction which is equal to duloxetine 60 mg

in escitalopram 20 mg to the chronic lumbago³. Otto and others⁴ are reporting that the pain reduces by the double-blind which prescribed escitalopram 20 mg a day for the cases of the painful neuropathy.

The chronic pain disappearance operation by antidepressant (escitalopram) which was reported in this time seems to be earlier than the manifestation of the antidepressant effect which is said to be equal to or more than 2 ~ 4 weeks generally.

Therefore, We added considering below about the possibility of the mechanism that Escitalopram of SSRI shows immediate effectivity in the glossodynia that is a non-organic chronic pain.

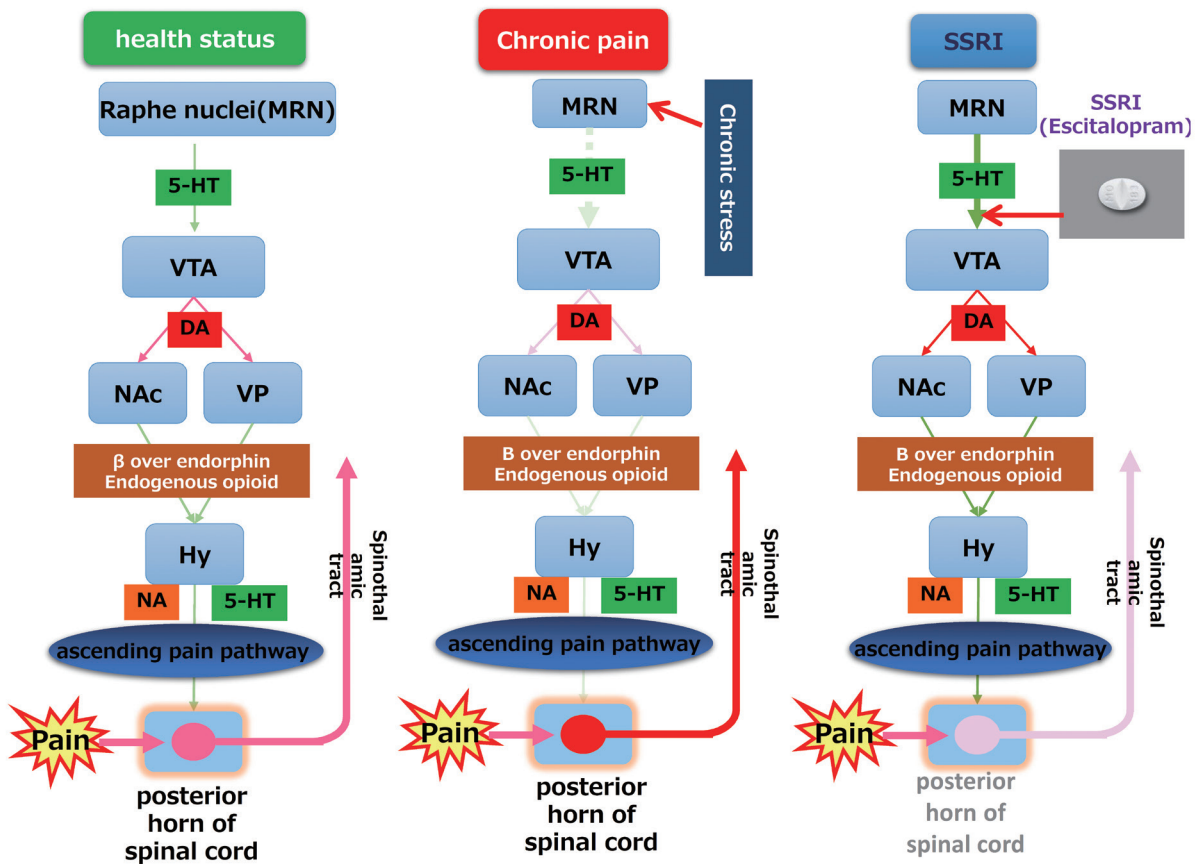


Fig 1: The figure of left end is health status, the figure of center is chronic pain condition and the figure of right end is the mechanism of the chronic pain restraint behind the escitalopram of SSRI internal use.

V Conclusions

Escitalopram which is SSRI was prescribed to 40 patients of the glossodynia. The pain disappearance from the early stage seemed to be earlier than the operation manifestation time of antidepressant which is explained in the 5-HT_{1A} receptor down regulation. Therefore, it logically estimated the different chronic pain restraint mechanism which acts only in 5-HT. It pointed out the possibility that the phasic dopamine increase by 5-HT system antidepressant from the ventral tegmental area and the β -endorphin increase from the corpus striatum and the globus pallidus which is caused by this anticipate in the manifestation of the very early chronic pain improvement effect of escitalopram which is seen by the chronic pain patients⁵⁾(Fig 1).

VI References

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