

## Therapeutical results of application of substances from cannabis ind. in dentistry

JAROMÍR SOLDÁN

The first use of cannabis substances in dentistry took place in 1952 in cooperation with the Institute of Hygiene and Microbiology of the Faculty of Medicine of the PU in Olomouc and its head, Prof. Dr. J. Kabelík.

The first use was in cases of herpes labialis by the staff of my department. Herpes labialis according to Trýb is caused by the symbiosis of the virus with some forms of coccal bacteria. We do not yet know exactly what causes the reversal of this agent from a state of latency to pathogenicity. It is certain that the eruption of vesicles on the edge of the red lips, their rapid transformation into pustules and then into yellowish crusts is associated with a number of painful and unpleasant sensations. With a larger eruption, there is also an increased temperature and headaches. Also, the further course, until the crusts are separated and healed, is quite unpleasant.

When cannabis agents were applied in the erythemetos prodromal stage, the pain disappeared within about 30 minutes. In the next 6 hours, the tissue turned pale. In the pustular and crustous stages, analgesia was also achieved within 30 minutes and complete healing within 2 days.

We apply extr. Cannabis indica in lanolin vehicle (extr. can. 0.5, lanolini 10,-). The advantage over penicillin antibiotics is that there is no need to store them in the refrigerator or avoid metal with cannabis preparations. We simply apply the active ingredients with a sterile metal scoop directly to the affliction.

The same forms have been used in the treatment of other oral affections: however, they must not bleed. It has been found and confirmed by experiment that blood has an inhibitory effect on cannabis substances. Also cultivation, e.g. on blood agar, showed a strong inhibition of the antibiotic effect, although current clinical results often document the opposite. These affections include, for example, deep secreting and painful periodontal pockets on teeth that are either firm or that cannot be removed for certain other reasons. Here we opened the pocket perfectly either by vertical spraying along the long axis of the tooth or even by wedge-shaped excision of the front wall of the pocket. The pocket was cleaned with a gingival curette, bleeding with 3% H<sub>2</sub>O<sub>2</sub> was exactly stopped, and then cannabis substances in lanolin were applied with a sterile metal spatula, a tampon fixed with a bite was applied for about 30 minutes. After this time, patients reported the disappearance of pain: the next day they came back with pale dehyperaemised gingiva. Healing of gingiva. Excision occurred within about 5 days. For better accessibility, this method was mainly used for frontal teeth.

A similar procedure was used in the case of uncomplicated moliminas of the lower teeth by wisdom: here we open the gum hood covering the molar by a wide wedge-shaped excision, we stop the bleeding exactly with H<sub>2</sub>O<sub>2</sub>, and then we apply cannabis substances as in the previous cases. In some cases, disappearance of regional lymph nodes has also been observed.

Also the dry socket - dry tooth socket - lost its pain after filling with cannabis substances, the next day it showed signs of healing, after a week it showed clear epithelialization. Healing occurred even in the unfavorable case of a wound after radix relecta (6 under the member of the bridge 5 - 7), which resisted lice therapy for a week and tormented the patient with considerable pain.

Another form of application of cannabis substances is the liquid used for oral sprays of the following composition: Rp. Tct. Salviae, Tct. Chamomillae, Tct. cannabis 1 : 5 spir. vini conc., Tct. capixingú 1 : 5. alcoh. 33 % n., Tct. gemmae populi. spir. vini conc.\*

This liquid can be used for spraying directly or diluted with water. For gargling, dilute it about 10 - 20 times with water. We preferably use these sprays especially in painful ulcerative gingivostomatitis, where we value the rapid disappearance of pain compared to therapia with other antibiotics. The ulcer also heals very well and the gingiva shows dehyperaemistion within 24 hours.

Once, this liquid was applied on a tampon to extensive mucosal and skin ulcers in a 4-year-old child who was treated with herpes labialis elsewhere by etching with a 10% solution of Ag NO<sub>3</sub>. Extensive and painful ulcers showed a loss of pain and clearing by the next day: the whole unpleasant affection was very quickly eliminated. Similarly, this liquid was used more often, except in cases where alcohol is a defect.

I also remember a cachectic 10-year-old girl from the children's ward refusing food for a mouth ulcer the size of a lens on her upper lip: this was, of course, a big handicap given her exhausted overall condition. After the application of cannabis substances, this child could eat painlessly the next day: the affection was epithelised within 48 hours.

The number of cases treated in the above way also enumerated above has already reached well over 500 cases. The application of cannabis spray and ointment has simply become a common method of treatment in our department.

Another form of cannabis application finds its place in conservative dentistry. According to Neuwirt, the vehicle here is dentin powder, obtained after sterilization, grinding extract. teeth and re-sterilisation of the powder. Toto vehicle jest watered 5 % cannabis. Substances; The resulting substance is a greasy powder, which we divide with a steril solution just before application. Arabic gum in warm physiologist. We make a thick paste. It is preferable to use traces of alcohol, because this additive releases the active ingredient from the powder, which can then have a lighter effect. The main use of this paste is in cases where the decaying cavity extends into the close vicinity of the pulp, so microperforation of the cavi pulpae is not excluded during normal preparation, as well as for deep cavities, especially on the front teeth.

It is therefore an indirect covering of the dental pulp, where the weakened dentin septum between the pulp and the decaying cavity is strengthened by a layer of cannab paste. Dentin. In addition to the antibiotic effect, the advantage here is also the analgesic effect: it is used especially in teeth with symptoms of pulp hyperaemia.

Cover the paste inserted into the cavity with a steril target. cellophane with cement, if the tooth is calm, we add the final filling after 14 days. We treated about 300 teeth in this way, of which about 80 were checked (appeared). It can be concluded from this that cases that do not show up remain calm.

With the correct selection and exclusion of cases of massively infected and more advanced inflammations, no failures were observed on the whole.

Overlapping the direct pulp accidentally exposed, i.e. cases that were not inflamed, were also tried. The perforation opening was covered with cannab paste after washing by a lukewarm physiologist. A tiny steril disc was attached to this one. cellophane and cement filling. After 3 weeks, the filling is final. We did this in 70 cases, of which 15 were checked without failure.

In 2 cases, a direct overlap was performed on the teeth intended for extraction for orthodontic reasons: 2 months after application, the tooth was extracted, it did not hurt all the time. These two teeth were given a histological examination.

To generalize these methods, it would be useful to search for a way of easier application of cannab. substances for the dental pulp. We examined the preparation with an oily vehicle, but without any particular success: apparently from a small amount of ointment used to cover the pulp with the active ingredient cannab. they do not release and therefore do not come into play, being blocked by a greasy vehicle. This was seemingly in discrepancy with our cannab app. substances in lanolin for gingival affections. However, this is probably a large amount compared to the small amount used to cover the dental pulp; After all, lanolin is absorbed over time and therefore releases the active substance.

It is certain that these theoretical results of ours are empirical in character for the time being, and will require further verification in order to be generalized and thus to bring benefits to the health of the working people being treated.

The results of therapeutic treatment with the use of antibiotics from cannabis have already been reported by me in Čs. Dentistry.<sup>1</sup>

Jiří Végr, a specialist dentist from Prague, informs in writing that in cases indicated for arsenic, about 85% of cases can be saved by cannabis preparations with live pulp in one or two sessions, while the treatment of mummified pulp requires much more treatment sessions.

### *SUMMARY*

The active substances of *Cannabis indica* were applied both in the form of a 5% ointment with lanolin and in the form of a liquid intended for oral prays in an alcoholic environment. The application of these substances shows an obvious therapeutic effect in the treatment of herpes labialis, periodontal painful pockets, gingival hoods above wisdom teeth, dry socket, aphthae and ulcerative gingivostomatitis. More than 500 people were treated in this way.

Furthermore, substances from *Cannabis indica* mixed with sterile dentin powder were used for treatment aimed at preserving vital dental pulp. This was in cases of indirect pulp overlap (about 300 patients, of whom 80 came for a check-up) and in cases of direct overlap in about 70 patients (15 people came for a check-up). Here, too, quick analgesia is a plus. When excluding cases of massively infected pulp, no failures were observed. In two cases, an experimental direct overlay was performed on the teeth predestined for extraction, the teeth were extracted after a certain time and handed over for histological examination.

It will be necessary to generalize these methods to verify the methodology on other cases and possibly to find even more suitable ways of applying substances from *Cannabis* to the dental pulp with direct and indirect overlapping.

\* Other tannic tinctures can also be used, e.g. from sumachu or ratanhia or knotweed snake root.

### *LITERATURE*

SOLDÁN J., Čs. stomatologie 53, 23 (1953).

Dental Clinic of the Faculty of Medicine of Palacký University in Olomouc.

*Head: Assoc. Prof. J. Šímek, M.D.*