

STUDY ON THE EFFECTS OF ADMINISTERING THE FIR BUDS POWDER IN MENISCAL LESIONS

Ioana Andra VLAD¹, Răzvan Vasile IONESCU¹, Diana Luminița DUBĂU²

¹ University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., 410048 Oradea; Romania,

² University of Oradea, Faculty of Medicine

RESEARCH ARTICLE

Abstract

Fir bud powder has a regenerative, analgesic and anti-inflammatory action on all cartilages, being the most effective and fast natural remedy for joint pain.

The treatment with fir bud powder is very well tolerated by the human body and has no side effects.

The intra-articular menisci are part of the knee joint and are two fibrocartilages that have developed on the periphery of each of the tibial articular fossa. Their role is to contribute to a better concordance between the femoral condylar surfaces and the insufficiently excavated tibial articular fossae.

Keywords: fir bud powder, meniscus injury

INTRODUCTION

In prophylactic and curative medicine, along with allopathic therapy, complex natural therapy is increasingly appreciated, in which medicinal plants play a very important role. Medicinal plants have the ability to contribute to restoring and preserving our health.

The intra-articular menisci are part of the knee joint and are two fibrocartilages that have developed on the periphery of each of the tibial articular fossa.

Their role is to contribute to a better concordance between the femoral condylar surfaces and the insufficiently excavated tibial articular fossae. (Papilian, 2003).

The lateral meniscus is more flexible than the medial one, which is why injuries to the medial meniscus are more common.

Meniscus injuries are represented by the total or partial tear (crack) of the meniscus and are considered among the most common knee conditions.

Meniscus injuries are post-traumatic or degenerative (they usually occur in the elderly).

The main symptom that appears in the case of a meniscus injury is pain, that can be accompanied by swelling, stiffness and locking of the knee and the impossibility of performing natural movements of the knee joint.

Fir bud powder is obtained by natural drying (dehydration) of fir buds in heated rooms or in attics, they being placed in thin layers on sheets of paper or cloth and occasionally shaken.

The composition of fir bud powder is extremely complex. It contains: essential oils, waxes, gums, calcium, phosphorus, iron, manganese, cobalt, copper, zinc, vitamins: C, K, B1, B2, vitamin E, PP. Fir bud powder also contains phytochemicals such as proanthocyanidins, monoterpenes, carotenoids, organic acids, chlorophyll.

Fir bud powder has an analgesic and anti-inflammatory effect in joint and rheumatic diseases and has beneficial effects on the cartilages, favoring their reconstruction.

MATERIAL AND METHOD

The study was conducted over a period of three months and included 15 people with meniscal injuries diagnosed by nuclear magnetic resonance.

The purpose of the study was to highlight the major role that fir bud powder has in relieving and combating pain caused by meniscus injuries.

The case report was provided by a private orthopedic office. Patients were shown the beneficial effects of fir bud powder in relieving pain caused by meniscus injuries as well as the absence of contraindications to its administration.

The 15 patients who confirmed participation in this study were monitored for three months while the treatment lasted.

The administered powder was obtained from the fir buds harvested from the fir trees in the northern exhibition forest on the edge of

Păușa township, Bihor county, in the spring of 2021.

After harvesting, the buds were dried in a clean and well-ventilated room at temperatures up to 20 °C. The buds were placed in thin layers on wooden frames and loosened periodically to avoid mold. After drying, the powder was obtained by grinding the buds with a Bosch TSM6 grinder. The powder was packed in glass jars of 100 grams, hermetically closed and stored in a dry place, protected from direct sunlight, for a short period of time until the start of the study.

The 15 patients self-administered one teaspoon each (about 5 grams) of fir bud powder, 3 times a day, a quarter of an hour before meals, for a period of 3 months.

Each patient was advised to hold the powder under the tongue for 5-10 minutes, then swallow it with a little water.

Patients were monitored by telephone, once every ten days in the first month of days, once every two weeks in the second month and only once in the third month, so a total of six monitorings.

There have been reports of improvement or disappearance of joint pain following treatment with fir bud powder.

Pain was assessed according to its presence or absence at rest and when performing various movements and according to its intensity (low, medium and high).

At the start of the study, all participating patients had pain of varying intensity, both at rest and when performing various movements of the knee joint.

The data obtained were centralized in a sheet, specially developed, which was completed for each individual patient at each follow-up.

RESULTS AND DISCUSSIONS

Regarding the evolution of pain according to its presence at rest or in motion, during the three months of treatment with fir bud powder, the following results were obtained (table 1, figure 1):

- at the first follow-up (after 10 days of treatment), of the total of 15 patients participating in the study, 14 had pain at rest and 15 had pain when moving.

- at the second follow-up (after 20 days of treatment), of the total of 15 patients participating in the study, 11 had pain at rest and 12 had pain when moving.

- at the third follow-up (after 30 days of treatment), of the total of 15 patients participating in the study, 8 had pain at rest and 10 had pain when moving.

- at the fourth follow-up (after 45 days of treatment), of the total of 15 patients participating in the study, 5 had pain at rest and 7 had pain when moving.

- at the fifth follow-up (after 60 days of treatment), of the total of 15 patients participating in the study, 3 had pain at rest and 4 had pain when moving.

- at the sixth follow-up (after 90 days of treatment), of the total of 15 patients participating in the study, no patient had pain at rest and 1 patient had pain when moving.

Table 1

Evaluation of pain according to its presence at rest or movement during treatment with fir bud powder during the study period.

Monitoring number	The number of patients who participate in the study	Pain present in rest	Pain present in motion
First monitoring	15	14	15
Second monitoring	15	11	12
Third monitoring	15	8	10
Fourth monitoring	15	5	7
Fifth monitoring	15	3	4
Sixth monitoring	15	0	1

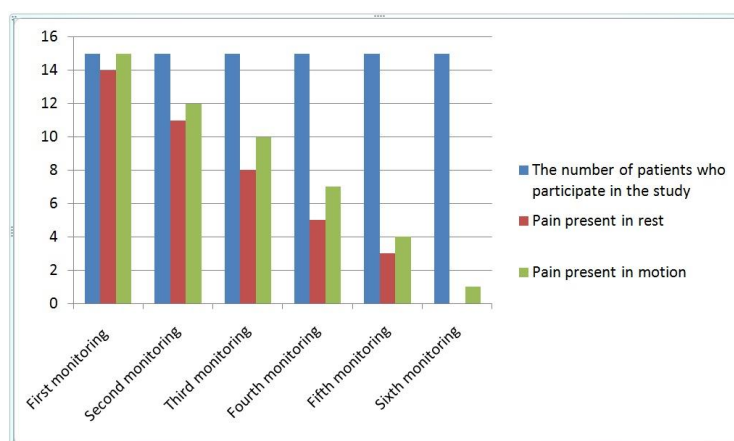


Figure 1 Evaluation of pain according to its presence at rest or movement during treatment with fir bud powder during the study period

During the treatment with fir bud powder, the number of patients who had pain in the knee joint decreased considerably, towards the end of the three-month period, none of the patients participating in the study had pain at rest and only one patient had pain to the movement.

Regarding the assessment of joint pain according to its intensity (low, medium, high), during the treatment period, the following results were obtained (table 2, figure 2):

- at the first follow-up (after 10 days of treatment), out of a total of 15 patients participating in the study, 3 had low intensity pain, 4 had medium intensity pain and 8 had high intensity pain.

- at the second follow-up (after 20 days of treatment), out of a total of 15 patients participating in the study, 4 presented pain of low intensity, 5 presented pain of medium intensity and 6 presented pain of high intensity.

- at the third follow-up (after 30 days of treatment), of the total of 15 patients participating in the study, 5 had low intensity pain, 5 had medium intensity pain and 5 had high intensity pain.

- at the fourth follow-up (after 45 days of treatment), out of a total of 15 patients participating in the study, 8 presented pain of low intensity, 7 presented pain of medium intensity and no patient presented pain of high intensity.

- at the fifth follow-up (after 60 days of treatment), out of a total of 15 patients participating in the study, 6 presented pain of low intensity, 4 presented pain of medium intensity and no patient presented pain of high intensity.

- at the sixth follow-up (after 90 days of treatment), out of a total of 15 patients participating in the study, 1 presented pain of low intensity and no patient presented pain of medium and high intensity.

Table 2
Evaluation of pain according to its intensity, during treatment with fir bud powder, during the studied period.

Monitoring number	The number of patients who participate in the study	Pain intensity		
		Small	Medium	High
First monitoring	15	3	4	8
Second monitoring	15	4	5	6
Third monitoring	15	5	5	5
Fourth monitoring	15	8	7	0
Fifth monitoring	15	6	4	0
Sixth monitoring	15	1	0	0

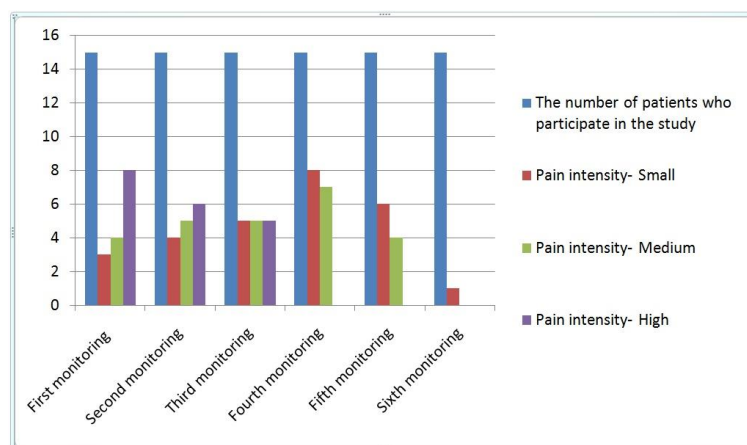


Figure 2 **Evaluation of pain according to its intensity, during treatment with fir bud powder, during the studied period.**

Analyzing the intensity of joint pain, during the 3 months of treatment with fir bud powder, it was found that the number of patients with intense pain high decreased progressively starting from the first 10 days of treatment, reaching zero after 45 days of treatment.

The number of patients with moderate and low intensity pain initially increased, which was maintained during four follow-ups, then decreased from the fifth follow-up, reaching zero in the case of patients with moderate intensity pain.

CONCLUSIONS

The treatment with fir bud powder is very well tolerated by the human body and has no side effects.

Fir bud powder has a complex, dynamic and unitary biological value, it provides the necessary biologically active substances to supplement the diet for the health of the human bone system, cartilage and teeth.

Fir bud powder has a regenerative, analgesic and anti-inflammatory action on all cartilages, being the most effective and fast natural remedy for joint pain.

The first signs of improvement consisting of reduced pain and increased mobility appeared after 8-10 days after the start of administration. The treatment must be continued for a period of three months to maintain the results.

REFERENCES

- Agopian A., 1975, Medicinal plants from the spontaneous flora and their substitutes, P.H. Reccop Bucharest.
- Alexan M., Bojor O., Crăciun F., 1988 și 1991, Medicinal flora of Romania, vol. I (1988) și vol. II (1991), P.H. Ceres, Bucharest
- Allahverdiyev A. și colab., 2004, Phytomedicine, 11, p. 657-661.
- Apostol A., Mateiaș C., 1983, Herba Romanica, 4,55-60.
- Bojor O., Alexan M., 1985, Medicinal and aromatic plants from A to Z, Recoop, Bucharest.
- Indrei S.T., Laza D., 1987, Prophylactic and therapeutic guide to natural medicine, the edition I, P.H. Litera, Bucharest.
- Puia Negulescu G., Mencinicopschi G., 2010, Food for a healthy life, P.H. Litera, Bucharest.
- Papilian V., 2003, Human anatomy, locomotor apparatus, P.H. All, Bucharest.
- Tyler V., 1999, Herbs of choice, New York: The Haworth Press.