

**EVALUATION OF THE EFFECTIVENESS OF TOPICAL INTRAOPERATIVE
HEMOSTASIS METHODS IN THE PREVENTION AND TREATMENT OF
COMPLICATIONS IN THYROID OPERATIONS**

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Annotation: In this scientific article, the clinical effectiveness of local intraoperative hemostasis methods is widely analyzed in the Prevention of complications arising in the process of surgical procedures performed on the thyroid gland. During the study, the practical importance of hemostatic agents, their effects on reducing bleeding, preventing hematoma formation, reducing surgical duration, and postoperative rehabilitation of patients were studied. The article aims to increase safety in Endocrine surgeries, minimize blood loss, and improve patient quality of life.

Keywords: Thyroid gland, surgery, hemostasis, bleeding, hemostatics, fibrin film, complications, “Surgicel”, “Tachosil”.

Introduction:

The thyroid gland is one of the most important endocrine glands in the human body and plays an important role in ensuring the balance of metabolism, thermoregulation, growth and activity of the central nervous system in the body.

Table 1. Results of evaluation of the effectiveness of hemostasis in thyroid surgery

Specification	Control (n=60)	group Experimental (n=60)	group Difference (%)
Duration of operation (minutes)	115 ± 10	98 ± 9	-14.8
Blood loss through drainage (ml)	120 ± 30	70 ± 20	-41.7
Hematoma cases (%)	8.3	1.6	-6.7
Need for re-operation (%)	5.0	0.0	-5.0

Rehabilitation (days)	period	7.2 ± 1.1	5.6 ± 0.9	-22.2
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Results:

According to the results of the study, bleeding was significantly reduced when topical hemostatic agents were used in the experimental group. While blood loss through moderate drainage was around 120 ml in the control group, in the experimental group this figure decreased to 70 ml. This allowed the blood supply to be maintained and the patient to recover quickly after surgery.

The duration of the operation was also reduced. With the use of local hemostatics, the surgeon was able to quickly stop bleeding and perform the dissection clearly and fluently. As a result, the average duration was reduced from 115 minutes to 98 minutes.

Postoperative hematoma cases hardly occurred in the experimental group. Only one patient (1.6%) had a mild subcutaneous hematoma, which was also resolved conservatively. The duration of the operation was also reduced. With the use of local hemostatics, the surgeon was able to quickly stop bleeding and p.

The rehabilitation period was also significantly reduced: patients in the experimental group returned to normal life activity on average in 5.6 days, while in the control group this period was 7.2 days.

The decrease in signs of inflammation (swelling, redness, pain) is also associated with hemostatic agents. The rehabilitation period was also significantly reduced: patients in the experimental group returned to normal life activity on average in 5.6 days, while in the control group this per.

Discussion:

The results obtained show that local intraoperative hemostasis methods are important in endocrine surgery. The thyroid gland is characterized by its rich vascular network. It is for this reason that damage to the smallest blood vessels also limits vision in the surgical area and increases the risk of surgery.

Traditional ligature or electrocoagulation methods do not always completely stop microtome-level bleeding. In addition, electrocoagulation can damage nerve tissue with heat, causing paralysis of the vocal cords. In this regard, local hemostatics is considered much safer, faster and softer for tissue.

The advantage of modern hemostatic agents is that they are compatible with physiological processes and are biocompatible with tissue. For example, oxidized cellulose activates platelet aggregation by forming acid when it comes into contact with blood in the tissue. "Tachosil" contains fibrinogen and thrombin, which components naturally activate the mechanism of blood

clotting.

In addition, these agents create an antimicrobial environment at the surgical site, reducing the likelihood of infectious inflammation. Even in our study, no cases of purulent inflammation or drainage infection were observed in the experimental group.

Even in foreign sources, the results of clinical studies in this direction confirm our analysis. For Example, Sosa J.veven in foreign sources, the results of clinical studies in this direction confirm our analysis. For Example, Sosa J. A. and a 2022 work by collaborators noted a 42% reduction in bleeding in patients who used” Surgicel”. Kim H. (2023), however, found that the need for re-surgery was 0% among patients who used “Tachosil”.

Another advantage of local hemostatics is that it reduces scar tissue formation in the area of surgery and maintains the function of the vocal cords. This serves as an important factor in restoring the patient's quality of life.

Thus, topical hemostatic agents serve not only to stop bleeding, but also to accelerate post-surgical tissue regeneration, reduce pain and reduce the overall rehabilitation period.

Conclusion:

Based on the results of the study, the following conclusions were drawn:

Local intraoperative hemostasis methods significantly reduce complications such as bleeding, hematoma, and re-surgery in thyroid surgery.

The clinical effectiveness of such agents as fibrin film, oxidized cellulose, “Surgicel” and “Tachosil” is high, which increase patient safety.

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The clinical effectiveness of such agents as fibrin film, oxidized cellulose, “Surgicel” and “Tachosil” is high, which increase patient safety.

When these remedies are used, the duration of the operation is reduced on average by 15-20 minutes, blood loss is reduced by 40-45%, and the rehabilitation period is accelerated by 1.5 times.

The use of topical hemostatics reduces the symptoms of inflammation, infectious complications are practically not encountered.

The results obtained can be the scientific basis for recommending the regular use of these techniques in endocrine surgery.

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