

Scrotal haematoma: The most common complication of no-scalpel vasectomy

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Abstract

Objective: to study the complications of no scalpel vasectomy such as scrotal haematoma, infection, scrotal sinus, and failure, recanalization, and sperm granuloma.

Materials and methods: A retrospective, descriptive study carried out in Dept. of Obs/ Gyn, Tribhuvan University Teaching Hospital Kathmandu Nepal.

Result: Among 926 no scalpel vasectomy clients 5(0.53%) had scrotal haematoma, 4(0.43%) with had infection, 3(0.32%) had scrotal sinus; there were 2 cases each vasectomy failure who could not achieve azospermia and 2 with recanalization while there was only one case of sperm granuloma.

Conclusion: the most common complication of no-scalpel vasectomy was scrotal haematoma and other complications are wound infection, scrotal sinus, vasectomy failure and sperm granuloma.

Key words: no scalpel vasectomy, scrotal haematoma, scrotal sinus, sperm granuloma.

Vasectomy is considered to be the most effective form of contraception and it remains very popular¹. More than 33 million couples now rely on vasectomy for contraception in US, the UK, India and china, and it is the contraceptive method of choice in 4-15 % of couples in Thailand, South Korea, Canada, and New Zealand². Vasectomy is a day-case procedure, carried out under local anaesthesia and is considered a simple procedure. Conventionally, the operation involves a 1-2 cm incision on either side of the scrotal skin and division and excision of a segment of each vas is made³. Gradually both the vas is approached through the single incision at median raphae of the scrotal skin. In China, the 'no-scalpel' technique (NSV) has been developed by Li Shun-quiang, aimed at increasing vasectomy by reducing man's fear of incision^{4, 5}. It makes use of specially designed instruments for isolating the vas through the scrotal skin. The wound heals spontaneously without suturing and the risks of haematoma and infection appear to be lower. However this method is not widely accepted by the conventional procedure performers⁶. When spermatozoa are absent from two consecutive samples the vasectomy is considered complete. The failure rate of vasectomy, where azospermia is not achieved, is around 3%⁷. In Nepal incidence of no scalpel vasectomy is different in Tarai and hilly region. In our center 86% of the sterilization is no scalpel vasectomy and only 14% tubal ligations. Complications of vasectomy include wound infection, sperm granuloma, scrotal haematoma, the

production of antisperm antibodies and late recanalization.

Materials and methods

It is retrospective study conducted in the department of Obs/Gyn, family planning and fertility care centre Tribhuvan University Teaching hospital. All the clients attending to the centre for voluntary sterilization were counselled for different choice and after informed consent all the vasectomies were performed by no-scalpel method.

Fascial interposition performed in 88.8% cases. After vasectomy all the clients were advice follow-up after one week, after three months and any time in case of any complication. Semen analysis was done in all the clients who came for follow up after 3 months. only 83% turned came for follow up while 17 % lost from follow up

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Result

There were total of 926 cases of no scalpel vasectomy. Among these 926 cases five (0.52%) clients had scrotal haematoma; three of them needed drainage under general anaesthesia while two treated conservatively as they were small enough to resolve by itself self.

The next common complication in four (0.43%) cases was wound infection. Interestingly out of these four clients, one didn't have any wound infection initially but there was infection of scrotum after one month. These all cases of infection were treated with antibiotics and nonsteroidal anti-inflammatory drugs. Three (0.32%) cases presented with discharge from scrotal sinus. Of these three, two cases had fascial interposition during the procedure and one without this step. Out of 926 cases 823(88.85) had fascial interposition and only 103(11.2%) without this step. All these clients treated by excision and sinus and release of vas. Two clients (0.215) had vasectomy failure, which did not achieve azospermia and required revasectomy. Another two clients (0.21%) had re canalization after achieving azospermia. One of them had recanalization after one year while another one had after four years. One client (0.1%) had sperm granuloma that was treated conservatively.

Discussion

Complications of a vasectomy include wound infection, sperm granuloma, scrotal haematoma, the production of antisperm antibodies and the late recanalization. In a large series in Oxford 8, 7.7 % sought for medical advice for local pain and 3.65 for bleeding. Scrotal haematoma developed in 0.9%. The NSV is quicker and is associated with a lower incidence of infection and haematoma. Late recanalization is uncommon but is well documented in literature. One might accept a method failure rate of approximately 1-5% in the first year. Cale at al. showed a possible association with testicular cancer⁹ but a large cohort study of over 73,000men in Denmark demonstrated no increased incidence following vasectomy¹⁰.

In this study the most common complication of no-scalpel vasectomy was scrotal haematoma 0.52%. this is some times life threatening condition, may need blood transfusion and drainage of haematoma with haemostasis under general anaesthesia. We had three such clients required drainage of haematoma and haemostasis. However all of them discharged in satisfactory condition. Next common complication was wound infection 0.43%cases. Both of these complications are lower than the reported incidences. There were three cases0.32% of scrotal sinus which

is not found coded in literature. The failure and recanalization incidence is also lower than the other studies. There was only one case 0.1% of sperm granuloma. Other minor complaints like mild backache, traction like sensation, mild scrotal pain were not recorded as these clients did not require treatment. Clients were not investigated for antisperm antibody formation.

Conclusion

The commonest complication of no-scalpel vasectomy is scrotal haematoma followed by wound infection, scrotal sinus, vasectomy failure and recanalization, while sperm granuloma is least common.

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