

COMPLICATIONS AFTER MIS-ADMINISTRATION OF POLYDIOXANONE (PDO) THREADFACELIFT – A CASE REPORT

Dr. Badie Idris^{*1}, Dr Hafsa Ilyas²

^{*1}Professor of Aesthetics and Stem Cell Surgeon, Aesthetic and Regenerative Medicine, London Aesthetics and Rejuvenation Centre, Lahore, Pakistan

²Interventional Radiologist, London Aesthetics & Rejuvenation Centre, Lahore Pakistan

¹dridris80@gmail.com, ²ilyas.hafsa32@gmail.com

Corresponding Author: *

Dr. Badie Idris

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ABSTRACT

A PDO thread lift is a non-surgical method used to address wrinkles and sagging skin on the face. It serves as an alternative to invasive surgical procedures like facelifts, Botox, or fillers. One of the main advantages of a PDO thread facelift is its reversibility and absence of incisions. Patients can resume their normal activities immediately after the procedure without any downtime. Most research studies suggest that swelling and minor bleeding may persist for one to two weeks. Similar to any procedure, PDO face thread lifts carry some risks. The most significant risk is the potential for infection in the sutures, which can result in scarring or other complications.

In aesthetic medicine, practitioners often provide inadequate hygienic conditions when using PDO threads. Since aesthetic procedures are typically performed in small private offices, only a fraction of complications are documented. In our case study, we present the case of a 48-year-old female patient who came to our clinic one month after undergoing four barbed 4D thread procedures at another center performed by a different doctor. The patient experienced swelling and soreness after the procedure and reported it to the surgeon who performed the treatment. Despite multiple follow-up visits, the patient was only prescribed a hydrocortisone cream by the physician.

The primary objective of our study was to shed light on a severe bacterial complication that occurred after a PDO thread procedure.

INTRODUCTION

Aesthetic uses of polydioxanone (PDO) threads have recently been widespread. Minimally invasive lift and correction of the nose's shape can be achieved using PDO threads, according to the majority of studies¹. PDO face thread lifts are an excellent way to tighten the skin and firm the underlying tissues. They're also a good option for patients who aren't a great candidate for surgical face lifts but want to get similar results¹. Inappropriate PDO face thread lifts may result in bacterial infections, which, if left untreated, may lead to scarring or even sepsis.¹

A PDO thread lift is a non-surgical approach to tackle wrinkles and sagging facial skin. Patients can choose this method as an alternative to invasive surgical procedures like a facelift, Botox, or filler. The main

benefits of a PDO thread facelift are that it is a reversible procedure that does not require any incisions². Patients can resume their regular schedule immediately after the procedure, and there is no downtime involved. Swelling and minor bleeding may persist for one to two weeks, according to most research studies³. An examination of 160 cases using PDO threads was conducted in a study retrospectively. Postoperative complications were described in the study, revealing that mis-administration of threads can cause major complications.³

There are some risks associated with PDO face thread lifts as well, just like with any procedure. The biggest risk is that the sutures will become infected, which can lead to scarring or other complications. A recent study

of postoperative complications after PDO thread procedures reported that when a patient undergoes a thread lift, there is a 35% chance of developing edema, 10% chance of palpable thread, 6% chance of paresthesia, 4% chance of thread visibility/palpability, 2% chance of infection, and 2% chance of thread extrusion⁴. Those aged 50 and above were significantly more likely to have facial wrinkling.⁴

Practitioners using PDO threads in aesthetic medicine commonly provide inadequate hygienic conditions. Aesthetic medicine procedures are usually performed in small, private offices, and hence only a tiny fraction of complications are documented.

The primary objective of our study was to highlight the serious bacterial complication that occurred after a PDO thread procedure.

Case Report

A patient aged 48 years came to our clinic one month after having four barbed 4D threads procedures at another center by another doctor. Postoperatively, the patient reported swelling and soreness to the surgeon, who performed the procedure. Despite several follow-up visits, the patient received a hydrocortisone cream prescription from the physician performing the procedure.

A post-procedure visit to our center 1 month later revealed abscesses along the thread course, which perforated in several locations. The patient had five threads implanted, two of which extended from the hairline to the nasolabial crease, one from the hairline to the lip corner, and two from the hairline to the nasolabial crease.

There were visible purulent discharges with thread fragments after perforating the lesion. Amoxicillin 875 mg and clavulanic acid 125 mg (p.o. every 12 hours) were given for antibiotic therapy. The patient noticed a marked reduction in swelling the day after treatment. Inflammation and edema were reported to be significantly reduced on day 5 during the follow-up visit.

Despite the presence of abscesses, the clear rippling of the skin was observed along the line of the thread. When the patient smiled, the deformation of the skin was noted. The threads were removed surgically, and abscesses and rippling were eliminated.

In the first stage of the surgery, each thread was removed using a single incision. The threads broke into pieces and had to be removed in fragments. The region was rinsed with 0.9% NaCl solution.

The patient's infected abscess was successfully treated with antibiotics and thread removal. Although the

infection cleared after the removal of the implanted threads, significant inflammation-related deformities developed. No skin-related problems were reported at the last follow-up.

Discussion

It is possible to contract bacterial infections if you use PDO threads, as reported in a previous study⁵. This example provides additional evidence of the difficulties in treating such an infection. The most likely explanation for the complication, in this case, is either an improperly performed procedure or suboptimal conditions during the procedure, in which all of the threads were infected. It was inserted into a patient's hairline.

A wide range of studies has explored the complications associated with PDO thread lifts; the proportion of patients experiencing such problems ranges from 6.2% to 2%⁶. Bacteria were found to be responsible for 8.9% of all thread lift complications related to PDO in an investigation. Some individual cases were also discussed.

There appears to be a need to inform patients about the treatment of complications associated with thread lifts if adequate information on the subject is lacking. Attempting to remove the threads resulted in them breaking into pieces, requiring numerous incisions to remove them completely. Information on the safety of these threads is unavailable. They are made of poly-L-lactic acid, polycaprolactone, and PDO⁷.

Postoperative bacterial infections are said to be a common complication resulting from the use of PDO threads. It may be challenging to remove PDO threads as part of the treatment for complications⁸. An anatomical map should be constructed in which the thread regions are identified.

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