

# Quality of life after inguinal hernia repair

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<b>Registration date</b> 23/12/2017	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
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		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

A hernia occurs when a part of the body on the inside pushes through the muscle or tissue weak spots. An inguinal hernia occurs in the groin area as a swelling or lump. Hernias often require surgery that puts a mesh on the muscle or tissue to reinforce it. There are different types of mesh include prolene or progrip mesh. There are not enough studies to provide the sufficient information on how inguinal hernia repair improves the quality of life. The aim of this study is to appreciate the postoperative chronic pain and the quality of life in patients who undergo plastic repair with either progrip or prolene mesh and as secondary approach to study the possible postoperative complications.

### Who can participate?

Male patients aged 18-75 years old with inguinal hernia.

### What does the study involve?

The patients are randomly allocated to one of two groups. Those in the first group have progrip used for their surgery. Those in the second group have prolene used for their surgery. The techniques and surgeries are the same for both groups. Participants are followed up with telephone calls at six months to assess their pain and quality of life.

### What are the possible benefits and risks of participating?

There are no direct benefits or risks with participating.

### Where is the study run from?

Agios Dimitrios General Hospital (Greece)

### When is the study starting and how long is it expected to run for?

February 2016 to May 2018

### Who is funding the study?

Agios Dimitrios General Hospital (Greece)

### Who is the main contact?

Dr Anastasios Katsourakis (Scientific)  
tasoskatsourakis@hotmail.com

# Contact information

## Type(s)

Scientific

## Contact name

Dr Anastasios Katsourakis

## ORCID ID

<https://orcid.org/0000-0002-5151-9449>

## Contact details

Agios Dimitrios General Hospital

2 Elenis Zografou

Thessaloniki

Greece

GR-54634

+30 2313 322 178

tasoskatsourakis@hotmail.com

# Additional identifiers

## Protocol serial number

01/hernia/09.2017

# Study information

## Scientific Title

Quality of life After Inguinal Hernia Repair: progrip vs prolene a randomised controlled trial

## Acronym

QAIHR

## Study objectives

Does the inguinal hernia repair improve the quality of patients' life?

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Scientific Council, Agios Dimitrios General Hospital of Greece, 16/01/2017, ref: 8th/ Topic EHA  
2th/08.08.2017

## Study design

Interventional single centre randomised controlled trial

## Primary study design

Interventional

## **Study type(s)**

Quality of life

## **Health condition(s) or problem(s) studied**

Inguinal hernia

## **Interventions**

Five consultants from the Surgical Department of "Agios Dimitrios Hospital" participated in the study, operated one patient at a time consequently, with both techniques, according to the randomization and watched over the postoperative period for six months. During the participants admission to the hospital, and after having read and signed the consent form for participation in the study, patients answered a questionnaire related to his medical and family history. Each patient was operated and participated to the study for the first episode of inguinal hernia. Participants are randomly allocated using closed enveloped to one 2 groups: progrip vs prolene group.

Participants undergo inguinal hernia repair using the treatment they were randomised to have: progrip or prolene mainly). ProGrip is a macroporous polyester mesh with resorbable polylactic acid (PLA) micro-grips on one side of the mesh, allowing its safe placement. The fact that it is not necessary the use of sutures, fibrin glue or tacks in order to secure the mesh, reduces the operative time. On the other hand, polypropylene mesh is a lightweight, macroporous mesh which requires multiple sutures.

The surgical techniques that were used for both meshes were held with either general, regional or local anesthesia, according to the indications of the anesthesiologist or the demands of the patient. Lichtenstein operation was performed for polypropylene mesh. Through a 7 cm incision, the subcutaneous fat along the line of the incision and the Scarpa fascia down to the external oblique aponeurosis were opened. The external inguinal ring and the lower border of the inguinal ligament were recognized. Then, we divided external oblique aponeurosis from the external ring laterally for up to 5 cm, safeguarding the ilioinguinal nerve. The superior and inferior flaps of the external oblique aponeurosis were mobilized, safeguarding the iliohypogastric nerve, in order to expose the underlying structures. Mobilization of the spermatic cord, along with the cremaster, including the ilioinguinal nerve, the genitofemoral nerve, and the spermatic vessels was held. All of these structures were encircled in a Penrose drain. We opened the coverings of the spermatic cord and identified and isolated the hernia sac, which then, was inverted, divided, resected or ligated, as indicated. We placed and fixed the mesh to the edges of the defect or weakness in the posterior wall of the inguinal canal to create a new artificial internal ring, taking care to allow some laxity to compensate for increased intra-abdominal pressure when the patient stands. Finally, we gently pulled of the testes back down to their normal scrotal position and closed the spermatic cord layers, the external oblique aponeurosis, the subcutaneous tissue, and the skin.

The surgical technique for ProGrip mesh is similar to Lichtenstein operation. After having dissected the hernia sac, we place the mesh. The self – gripping flap of the mesh is then opened and closed around the cord outside the operating area in order to avoid any untimely side by side placement. The mesh is then placed carefully to its final position. Its fixation is performed with one single suture at the pubic tubercle. No additional fixation suture is required. In both techniques we preserved and safeguarded all the nerves.

The day after the surgery, patients without postoperative complications return home. Cleaning and observation of the surgical wound is performed every two days, until the removal of the

stitches, the eighth day. Participants are fill out SF36 to evaluate the pain through telephone interview the first and the sixth month after the surgery. In case of a complication, they were readmitting to the hospital for examination. No surgical technique was modified or individualized in any of the 200 patients.

### **Intervention Type**

Mixed

### **Primary outcome(s)**

1. Pain in measured using the Visual Analogue Scale Core (VAS) at one and six months
2. Quality of life is mesasured using the questionnaire SF36 at one and six months

### **Key secondary outcome(s)**

Immediate and long-term postoperative complications are measured using the medical records when they occur and at six months.

### **Completion date**

30/05/2018

## **Eligibility**

### **Key inclusion criteria**

1. Male patients with inguinal hernia, fit to surgery.
2. Aged 18-75 years old

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Lower age limit**

18 years

### **Upper age limit**

75 years

### **Sex**

Male

### **Key exclusion criteria**

1. Relapse
2. Bilateral inguinal hernia
3. Strangulated inguinal hernia
4. Female patients

5. Inguinoscrotal hernia
6. Laparoscopic repair
7. Other alongside surgery

**Date of first enrolment**

01/01/2017

**Date of final enrolment**

01/01/2018

## Locations

**Countries of recruitment**

Greece

**Study participating centre**

**Agios Dimitrios General Hospital of Greece**

2 Elenis Zografou

Thessaloniki

Greece

GR-54634

## Sponsor information

**Organisation**

Agios Dimitrios General Hospital scientific committee

## Funder(s)

**Funder type**

Hospital/treatment centre

**Funder Name**

Agios Dimitrios General Hospital

## Results and Publications

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are/will be available upon request from Anastasion Katsourakiw, MD, PhD- [tasoskatsourakis@hotmail.com](mailto:tasoskatsourakis@hotmail.com)

## **IPD sharing plan summary**

Available on request