



## Original article

# Risk Factors for Bad Outcomes in Incisional Hernia Repair: Lessons Learned From the National Registry of Incisional Hernia (EVEREG)<sup>☆,☆☆</sup>



José Antonio Pereira,<sup>a,b,\*</sup> Blanca Montcusí,<sup>a</sup> Manuel López-Cano,<sup>c,d</sup>  
Pilar Hernández-Granados,<sup>e</sup> Laura Fresno de Prado,<sup>b</sup> Members of the EVEREG Registry<sup>◇</sup>

<sup>a</sup>Servicio de Cirugía General, Hospital Universitari del Mar, Barcelona, Spain

<sup>b</sup>Departament de Ciències Experimentals i de la Salut, Universitat Pompeu Fabra, Barcelona, Spain

<sup>c</sup>Servicio de Cirugía General, Hospital Vall d'Hebron, Barcelona, Spain

<sup>d</sup>Departament de Cirurgia, Universitat Autònoma de Barcelona, Barcelona, Spain

<sup>e</sup>Hospital Universitario Fundación Alcorcón, Madrid, Spain

## ARTICLE INFO

## Article history:

Received 27 October 2017

Accepted 24 March 2018

Available online 8 August 2018

## Keywords:

Incisional hernia

Registries

Risk factors

## A B S T R A C T

**Introduction:** Registries are powerful tools for identifying factors predicting bad results. Our objective was to analyze data from the Spanish Registry of Incisional Hernia (EVEREG) to detect risk situations for the development of complications and recurrences.

**Methods:** We have analyzed data of the cohort of hernias registered during the period from July 2012 to June 2014. We have compared the data between complicated and non-complicated patients in the short and long term follow-up. Data compared were: patient demographics, comorbid condition, hernia defect characteristics and surgical technique to determine which of them may be predictors of poor outcomes.

**Results:** During the period of study, we collected data from 1336 hernias (43.7% males; 56.3% females) with a mean age of 63.6 years (SD 12.4) and BMI of 30.4 (SD 5.4). In the multivariate analysis, factors associated with complications were: age >70 years, previous neoplasm, diameter greater than 10 cm, previous repair and bowel resection. Factors related with recurrences were: parastomal hernia, previous repair, emergency repair, postoperative complications and reoperation. A separation of components was the only protective factor for this type of analysis (OR 0.438; CI 0.27–0.71; P = .0001).

<sup>\*</sup> Please cite this article as: Pereira JA, Montcusí B, López-Cano M, Hernández-Granados P, Fresno de Prado L, Miembros del registro EVEREG. Factores de riesgo de mala evolución en la reparación de hernias incisionales: Lecciones aprendidas del Registro Nacional de Hernia Incisional (EVEREG). Cir Esp. 2018;96:436–442.

<sup>☆☆</sup> This work was presented at the Congress of the European Hernia Society (May 2017, Vienna) with the title: “Registries as tool to identify risk factors for bad outcomes”.

<sup>\*</sup> Corresponding author.

E-mail address: 86664@parcdesalutmar.cat (J.A. Pereira).

<sup>◇</sup> Members of the EVEREG registry are listed in [Appendix A](#).

*Conclusions:* Risk factors for the development of complications and recurrences must be considered for promoting preoperative patient prehabilitation, planning the surgical technique and referring patients to specialized abdominal wall units.

© 2018 AEC. Published by Elsevier España, S.L.U. All rights reserved.

## Factores de riesgo de mala evolución en la reparación de hernias incisionales: Lecciones aprendidas del Registro Nacional de Hernia Incisional (EVEREG)

### R E S U M E N

#### Palabras clave:

Hernia incisional  
Registros  
Factores de riesgo

*Introducción:* Los registros son herramientas potentes para identificar situaciones de riesgo de mala evolución. Nuestro objetivo ha sido analizar los datos del Registro Nacional de Hernia Incisional (EVEREG) para detectar situaciones de riesgo para el desarrollo de complicaciones y recidivas.

*Métodos:* Se analizan los datos de la cohorte de hernias registradas en el período desde julio de 2012 hasta junio de 2014. Se realiza una comparación estadística entre las hernias que presentaron complicaciones y recidivas, y su relación con los pacientes, las características de las hernias y la técnica quirúrgica, para determinar cuáles de ellos pueden predecir malos resultados.

*Resultados:* En el período de estudio disponemos de datos de 1.336 hernias (43,7% varones; 56,3% mujeres), con una edad media de 63,6 años (DE: 12,4) e IMC de 30,4 (DE: 5,4). En el estudio multivariante las variables asociadas a la presencia de complicaciones fueron: edad superior a 70 años, neoplasia, longitud del defecto mayor de 10 cm, reparación previa y resección intestinal. Las variables asociadas a recidiva fueron: las hernias paraestomales, la reparación previa, la cirugía urgente, la aparición de complicaciones postoperatorias y la reintervención quirúrgica. El uso de una separación de componentes fue el único factor protector en este tipo de análisis (OR: 0,438; IC: 0,27-0,71;  $p = 0,001$ ).

*Conclusiones:* La presencia de factores de riesgo para la aparición de complicaciones y recurrencias debe ser tenida en cuenta con el fin de proyectar la prehabilitación del paciente para la cirugía, planificar la técnica quirúrgica y su derivación a unidades especializadas.

© 2018 AEC. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

## Introduction

National registries are very powerful tools that provide a large volume of data. Their analysis enables us to reach conclusions in order to: improve treatment, identify in advance which patients are at higher risk of complications, and identify subgroups requiring specific measures to avoid the appearance of postoperative complications.<sup>1-3</sup>

The use of registries for abdominal wall surgery has extended worldwide in recent years, and there are numerous contributions related to the analysis of the registered data to achieve a better understanding of this highly prevalent pathology and obtain better results in their treatment.<sup>4-7</sup>

The Spanish National Registry of Incisional Hernias (EVEREG) was initiated in July 2012. By July 2017, it included data from 160 Spanish hospitals and a total of 7505 cases of hernias related to previous laparotomy (no primary ventral hernias were registered). An initial analysis of the first years of data collection has been previously published, which demonstrated the need to introduce improvements in treatment, especially to reduce the number of complications and recurrences.<sup>8</sup>

The aim of this study is to analyze, in a cohort of registered cases, variables for patient-related data, surgical situation, hernia characteristics and the surgical technique used in order to predict the appearance of postoperative complications and recurrences, and, based on this knowledge, suggest the implementation of preoperative, technical and postoperative measures to improve results

## Methods

The registry is promoted by the Abdominal Wall and Sutures Division of the Spanish Association of Surgeons. Data are stored in an external server, whose global data are only accessible by the surgeons who head this nation-wide initiative.<sup>8</sup> The data were collected prospectively from the Spanish National Registry of Incisional Hernias between July 2011 and June 2014. During this period, a total of 2181 hernias had been registered, and 1336 cases (61.25%) were considered valid for the analysis. The causes for exclusion of the remaining registries were: date of intervention prior to the start of the registry ( $n = 108$ ), errors in data collection that impede analysis ( $n = 237$ ) and absence of follow-up data during the first 30 days after surgery ( $n = 530$ ). The data

Download English Version:

<https://daneshyari.com/en/article/8945928>

Download Persian Version:

<https://daneshyari.com/article/8945928>

[Daneshyari.com](https://daneshyari.com)