



REVISTA MÉDICA DEL
HOSPITAL GENERAL
DE MÉXICO

www.elsevier.es/hgmx



CLINICAL CASE

First published case of thoracoscopic patent ductus arteriosus closure in the general hospital of Mexico Dr. Eduardo Liceaga



W.L. Dajer-Fadel^{a,*}, M.G. Pliego-Sánchez^b, E.M. Mejía-Melgar^c, D.P. Yépez-Ramos^c,
C.A. Latorre-Davila^c, C.R. Tortolero-Sánchez^c, O. Flores-Calderón^a,
S. Ramírez-Castañeda^a, O.F. López-Noria^d, R. Argüero-Sánchez^e

^a Staff Physician, Department of Cardiac Surgery, Hospital General de México Dr. Eduardo Liceaga, Mexico City, Mexico

^b Staff Physician, Anaesthetics Department, Hospital General de México Dr. Eduardo Liceaga, Mexico City, Mexico

^c Cardiothoracic Surgery Resident, Hospital General de México Dr. Eduardo Liceaga, Mexico City, Mexico

^d Staff Physician, Paediatric Cardiology Department, Hospital General de México Dr. Eduardo Liceaga, Mexico City, Mexico

^e Head of Cardiology and Cardiac Surgery Department, Hospital General de México Dr. Eduardo Liceaga, Mexico City, Mexico

Received 28 April 2015; accepted 14 June 2016

Available online 10 August 2016

KEYWORDS

Patent ductus
arteriosus;
Thoracoscopic
surgery;
Thoracoscopy;
Patent ductus
arteriosus closure

Abstract Patent ductus arteriosus is treated according to its indications conservatively with medications or by surgical closure; the latter was traditionally performed by an open technique, then later, the percutaneous approach was developed for selected cases and finally, in recent years, it has been done by thoracoscopic surgery with success challenging percutaneous results. However, at our hospital, this had not been tried before. We present the case of a female patient who met the ideal criteria for this procedure to be performed and in whom it was successfully accomplished without complications; hence our report, motivated by the historical importance and as a baseline for future cases.

© 2016 Sociedad Médica del Hospital General de México. Published by Masson Doyma México S.A. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

PALABRAS CLAVE

Persistencia de
conducto arterioso;

Primer caso publicado de cierre toracoscópico de persistencia de conducto arterioso en el Hospital General de México Dr. Eduardo Liceaga

Resumen La persistencia de conducto arterioso es tratada de acuerdo a sus indicaciones de forma conservadora con medicamentos o por cirugía; originalmente esta se realizaba de forma

* Corresponding author at: Ave. Cuauhtemoc #403 ed. 12 ap. 102, Col. Roma Sur, Deleg. Cuauhtemoc, CP 06760 Mexico City, Mexico.

Telephone: +52 5512861038.

E-mail address: drdajer@gmail.com (W.L. Dajer-Fadel).

Cirugía
toracoscópica;
Toracoscopía;
Cierre de conducto
arterioso persistente

abierta, posteriormente surgió la oclusión del conducto por vía percutánea en pacientes seleccionados y por último en años recientes por cirugía toracoscópica con resultados satisfactorios que compiten con los resultados percutáneos, sin embargo en nuestro Hospital, este último no se había realizado antes. Presentamos el caso publicado de paciente femenino, la cual era candidata ideal para este método, habiéndolo realizado con éxito en nuestra institución por primera vez, el motivo de presentación del caso recae en la importancia histórica del mismo, así como base para la modificación de la técnica en nuestros futuros casos.

© 2016 Sociedad Médica del Hospital General de México. Publicado por Masson Doyma México S.A. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Patent ductus arteriosus (PDA) is a cardiovascular abnormality wherein the duct, which is part of the normal foetal circulation that normally closes spontaneously within the first 24–36 h after birth, remains patent. The consequence is a shunt from left to right between the aorta and pulmonary artery which has haemodynamic repercussions and if not addressed, can be fatal. In Mexico, PDA is the most common congenital heart defect.¹ Traditionally, this abnormality was corrected with open surgery, suturing the duct where, in some groups, this is transected. In 1971, Porstmann et al. reported the first percutaneous occlusion, changing the direction of management of these patients in the last three decades.² In 1993, Laborde et al. performed the first thoracoscopic closure with high success rates,³ and this opened up a debate as to whether the percutaneous technique was better than the thoracoscopic as there was no significant benefit in overall success, complications or blood transfusions when compared with minimally invasive surgery.⁴ In our country, Arellano-Ostoa et al. analysed 105 cases where successful occlusion was reported in 100% of patients with a postoperative complication rate of 3.8%.⁵ Alvarez-Tostado et al. reported the first two successful cases in 1994, followed by another report of their experience in 62 patients with 100% successful occlusion and 4.8% complications.^{6,7} This presentation is motivated by the importance of the advantages offered by minimally invasive surgery over open techniques, as well as the large number of patients with PDA treated at our hospital, making it essential that we seek to introduce this technique.

Presentation

This was an 11-year-old female patient, 132 cm tall and weighing 32 kg, referred to the Paediatric Cardiology Department from another hospital. She had a history of a grade III/IV continuous murmur in the left 2nd intercostal space with femoral pulses with increasing amplitude and associated dyspnoea on moderate exertion. Previous investigations included transthoracic echocardiogram which reported patent ductus arteriosus as the only morphological abnormality, with a diameter of 8 mm at the pulmonary and aortic sides, with a length of 17 mm, with a pulmonary artery pressure of 31 mmHg and Qp/Qs of 1.1:1, preoperative blood studies within normal ranges; thoracoscopic surgical

closure was decided after consensus with the medical-surgical group.

Once in the operating theatre, selective intubation of right lung was performed and an oesophageal stethoscope was placed to ensure the absence of murmur once the duct was closed (Fig. 1), with the patient in right lateral decubitus position and flexion at the point between the last costal arch and the iliac crest in order to lower the hip, allowing greater manoeuvrability of the instruments during surgery (Fig. 2). A 5 mm incision was made in the 3rd intercostal 1 cm medial to the scapula where a 30° thoracoscope or working tools could be introduced, another immediately caudal to the scapula in the 4th intercostal space as a working port, and a third in the 3rd intercostal space, anterior

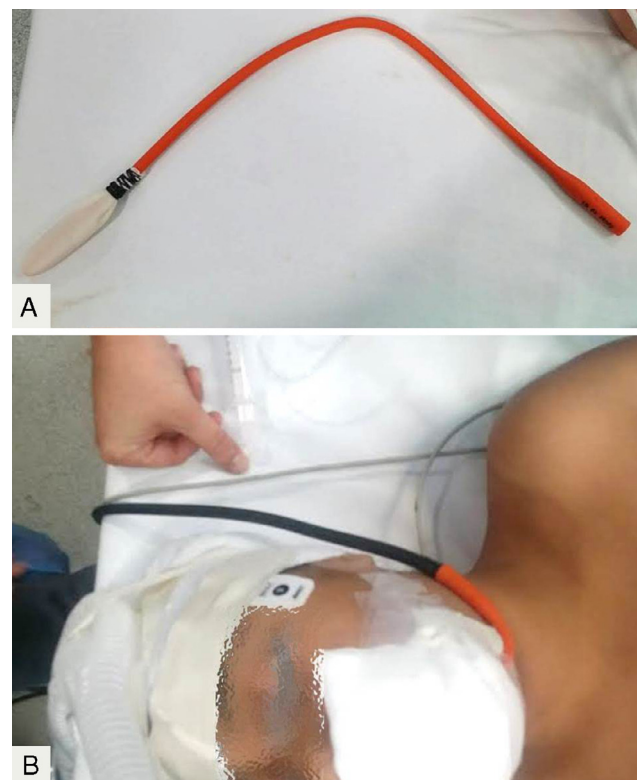


Figure 1 (A) Construction of oesophageal stethoscope with a Nelaton catheter, fixing the finger of a glove to its distal end with silk suture. (B) Proximal portion of the Nelaton catheter connected to conventional stethoscope tube after removal of the diaphragm.

Download English Version:

<https://daneshyari.com/en/article/5683767>

Download Persian Version:

<https://daneshyari.com/article/5683767>

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