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Quality of laparoscopic radical hysterectomy in developing countries: A comparison of surgical and oncologic outcomes between a comprehensive cancer center in the United States and a cancer center in Colombia

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ABSTRACT

Objective. To help determine whether global collaborations for prospective gynecologic surgery trials should include hospitals in developing countries, we compared surgical and oncologic outcomes of patients undergoing laparoscopic radical hysterectomy at a large comprehensive cancer center in the United States and a cancer center in Colombia.

Methods. Records of the first 50 consecutive patients who underwent laparoscopic radical hysterectomy at The University of Texas MD Anderson Cancer Center in Houston (between April 2004 and July 2007) and the first 50 consecutive patients who underwent the same procedure at the Instituto de Cancerología–Clínica las Américas in Medellín (between December 2008 and October 2010) were retrospectively reviewed. Surgical and oncologic outcomes were compared between the 2 groups.

Results. There was no significant difference in median patient age (US 41.9 years [range 23–73] vs. Colombia 44.5 years [range 24–75], $P=0.09$). Patients in Colombia had a lower median body mass index than patients in the US (24.4 kg/m^2 vs. 28.7 kg/m^2, $P=0.002$). Compared to patients treated in Colombia, patients who underwent surgery in the US had a greater median estimated blood loss (200 mL vs. 79 mL, $P<0.001$), longer median operative time (328.5 min vs. 235 min, $P<0.001$), and longer postoperative hospital stay (2 days vs. 1 day, $P<0.001$).

Conclusions. Surgical and oncologic outcomes of laparoscopic radical hysterectomy were not worse at a cancer center in a developing country than at a large comprehensive cancer center in the United States. These results support consideration of developing countries for inclusion in collaborations for prospective surgical studies.

Introduction

Approximately 492,243 new cases of cervical cancer are diagnosed worldwide each year. Of these, 83% are diagnosed in developing countries [1]. The standard treatment for patients with early stage disease has been open radical hysterectomy. However, recently, an increasing number of centers are offering laparoscopic surgery as a routine approach to gynecologic malignancies. A number of reports have documented the safety and feasibility of laparoscopic radical hysterectomy [2–6].

Laparoscopic radical hysterectomy is currently being performed in both developed and in some developing countries. In many developing countries, hospitals provide limited or no training in laparoscopic surgery. Surgeons often teach themselves and embark on the practice of minimally invasive surgery with limited formal training.

Collaborations with centers throughout the world are becoming a more common goal of many academic centers in the United States [7]. At The University of Texas MD Anderson Cancer Center, surgeons from many developing countries are offered the opportunity to rotate with MD Anderson surgeons with support from Global Academic Programs, a division of MD Anderson's Center for Global Oncology [7]. In addition to providing developing-country surgeons with training and exposure to developed-world surgical practices, these rotations promote academic exchanges that often lead to joint research projects. In gynecology, studies are already under way in which institutions in the United States are conducting surgical trials in which patients are being accrued at institutions worldwide [8]. One potential concern with respect to multi-institutional gynecologic surgical trials, particularly those involving minimally invasive surgery, is that the

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