



Rates of ruptured abdominal aortic aneurysm during the COVID-19 pandemic in Ireland: letter to the editor

Ali Basil Ali¹ · Tayyub Mansoor¹ · Ameer Al-Jasim² · Sayed Aly¹ · Peter Naughton¹ · Daragh Moneley¹ · Elrasheid Kheirelseid¹ · Seamus McHugh¹

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Dear Editor,

The novel coronavirus-19 (COVID-19) disease pandemic is the largest and fastest moving challenge for public health worldwide. We would like to present our data of ruptured abdominal aortic aneurysm (RAAA) prevalence during the current pandemic within our centre.

Beaumont Hospital is an 820-bed tertiary center in Dublin providing vascular surgery services to a catchment area of 875,000 people. In Ireland, the first lockdown was initiated on March 12, 2020, as a governmental response to delay the spread of COVID-19 to avoid overwhelming of the health service nationally. Elective services including non-emergency outpatient appointments and routine imaging appointments were initially cancelled and then reintroduced gradually, and in accordance with social distancing measures as recommended, the authors here sought to ascertain whether the decreased clinical and radiological assessment of patients with known or unknown abdominal aortic aneurysm (AAA) would result in an increased rate of patients presenting with RAAA who otherwise would have undergone an elective repair. To do so, we assessed the numbers of RAAA undergoing emergency surgery in our hospital in 2 years following this initiation of lockdown. We compared this number to the annual incidence in 2 years preceding March 2020. Data was collected from theatre logbooks and the Beaumont Hospital online patient information system over a 4-year period centering in March 2020. In 2 years preceding March 2020, there had been 14 patients undergoing RAAA surgery (i.e. 7 RAAA/annum). Over the 2-year

period from March 2020, a total of 15 patients underwent emergency RAAA repair (7.5 RAAA/annum). Mean age (SD) of patients undergoing emergency RAAA repair was 77.6 ± 10.5 . The majority ($n=12$, 80%) was males. We were also able to compare to the previous published incident of RAAA surgery rate in our institution, with a paper by the authors noted 54 RAAA surgeries over 58 months (9.3 RAAA/annum) [1].

During the COVID-19 pandemic, to limit the virus spread, health care authorities took large-scale measures including limiting hospital attendance to emergency cases only. Thus, follow-up visits for small AAAs in asymptomatic patients were postponed. Also, follow-up visits for postoperative patients were affected. In addition, many patients were concerned regarding contracting the virus in a hospital setting and were reluctant to attend their hospital appointments.

Despite these measures, however, the number of patients undergoing emergency surgery for RAAA remained comparable over 2 years of the COVID-19 pandemic to the preceding 2 years and indeed to previously published annual incidence of RAAA surgery in our institution.

We acknowledge a limitation in our study as we have not had the resource to capture the number of patients presenting to our institution with RAAA who do not undergo surgery.

Declarations

Conflict of interest The authors declare no competing interests.

Reference

1. McHugh SM, Aherne T, Goetz T et al (2016) Endovascular versus open repair of ruptured abdominal aortic aneurysm. *Surgeon* 14(5):274–277

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✉ Ali Basil Ali
alibasilali@rcsi.com

¹ Department of Vascular Surgery, Beaumont Hospital, Dublin, Ireland

² Department of Surgery, University of Baghdad, Baghdad, Iraq