

Initial experience with total aortic arch replacement: early to mid-term outcomes

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Introduction

The first Scottish dedicated aortic service was established in 2018 at the Royal Infirmary of Edinburgh. This study reports our initial single-centre experience with total aortic arch replacement.

Materials and Methods

Consecutive patients undergoing elective and emergency total arch replacement were included in our study.

Relevant demographic and perioperative data, including 30-day and 1-year mortality alongside postoperative complications were retrospectively obtained from our electronic patient's records. Kaplan-Meier survival analysis was performed using SPSS 28.

Results

Between July 2018 and July 2022, 36 consecutive patients underwent total arch replacement in our institution.

Types of pathologies treated



Demographic and operative data				
Age at surgery	59±12 years			
Male	18 patients (50%)			
Emergency surgery	6 patients (17%)			
Concomitant root surgery	10 patients (28%)			
Redo surgery	10 patients (28%)			
Frozen elephant trunk grafts	28 patients (78%)			
Selective antegrade cerebral perfusion	35 patients (97%)			

Results

In-hospital or 30-day mortality in the entire cohort was 8.3% (3 patients) and 1-year survival was 78%.

Rates of postoperative complications



The median LOS was 14.5 days (IQR:9-21 days).

20 patients (56%) subsequently underwent a 2nd stage operation for the descending aorta (8 TEVAR and 12 open repairs). The median time between the 1st and 2nd stage procedure was 187 days (IQR: 73-294).

Overall survival at 3.5 years was 66%. Survival curves did not show any difference between emergency vs elective surgery (p=0.549) or redo vs first-time surgery (p=0.132).

Conclusion

Our initial experience shows comparable results with those reported in the literature for early and mid-term survival after total aortic arch replacement. Long-term follow-up and aortovascular MDT surveillance is needed.

HERE'S MY NUMBER, CALL ME MAYBE?

Developing a Specialist Palliative Care Telephone Advice Line for Healthcare Professionals

BACKGROUND

We carried out this project in Ardgowan Hospice, an independent hospice in the West of Scotland, serving a population of over 76,000.(1) Feedback from colleagues in primary care highlighted the need for a dedicated advice line to improve access to specialist palliative care (SPC) and to facilitate timely referrals to our service.

METHOD

- <u>Development</u>
 Process mapping to understand existing steps
 end feedback to the between receiving a call and feedback to the patient's parent team Team decision that we would take referrals via
 - the SPC helpline We developed a proforma on our patient record
 - system (Crosscare) for documentation purposes, alongside using a virtual landline platform
 - Either a Specialty Doctor, Clinical Fellow, Advanced CNS or CNS holds the helpline, Monday
- to Friday 0900-1700. A Consultant is always available for advice if required. We shared the helpline number with our colleagues in primary and secondary care with posters, business cards and by email.
- Evaluation
- We analysed data from the virtual landline platform and Crosscare for total number of calls and referrals generated, referral sources, patient demographics and outcomes.

QUALITATIVE FEEDBACK The helpline has been an amazing development for our team working with the hospice. We can literally lift the phone on busy wards and refer patients who either need admission or are going home and need hospice CNS input. This saves populating forms and allows us time to be with patients. The phoneline is so responsive and helpful. We have successfully shared this with our colleagues in acute and people have commented on how user

friendly this is. - Hospital Palliative Care CNS

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🜿 Ardgowan **Hospice**

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OBJECTIVES

- To develop a dedicated SPC advice line for healthcare professionals (HCPs) in primary and secondary care
- To evaluate the effectiveness of the advice line in improving access to SPC

I link with this service weekly and accessibility has improved vastly. I know even if it's the smallest question, that I can call and they will assist me. - District Nurse

Love it, good to get it right from the outset rather than stumbling about and having to rectify it later. - GP

Having a helpline that district nurse prescribers can contact for advice has been valuable. - District Nurse 99

Quick response and communication has been excellent. Able to feedback to team, patient and their family and guide decision making. - Hospice CNS based in community

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RESULTS (FEB TO AUG 2023)



330 contacts



199 patients 115 of these were new referrals



55 contacts were triaged as being appropriate for hospice admission



130 contacts were triaged as being appropriate for community palliative



143 contacts were for specialist palliative care advice

care team review



The number of contacts via the helpline has increased over these months. District nurses form the largest proportion of helpline users, followed by hospital teams, as per Figure 1.

Professional carers employed by the local Health and Social Care Partnership (HSCP) and nursing homes are a new group that we have been able to engage with. Prior to the introduction of the helpline, professional carers and district nurses were unable to seek direct SPC advice or make a referral to our team without going via the patient's GP.

The preferred method of referral to our team is the helpline, as shown in Figure 2. We have noted a downward trend in referrals via alternative routes.

The overall number of referrals to our team has increased over these months. Having conversations with our referrers has allowed us to offer proactive reviews, encouraging early SPC involvement.

The helpline has allowed us to triage referrals efficiently to aid prioritisation. This has been instrumental in effective team coordination and resource allocation across both the community and inpatient team.

CONCLUSION AND FUTURE DIRECTIONS This SPC advice line has improved access to SPC advice and streamlined our referral process. We aim to extend the advice line beyond 0900-1700 Monday to Friday and quality improvement around widening access to SPC.

1. www.nrscotland.gov.uk. (n.d.). Inverclyde Council Area Profile. [online] Available at: https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/inverclyde-council-profile.html.

Establishing A Nurse Led Clinic For Ambulatory Chest Drain In NHS Lothian

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Introduction: Prolonged air leak is one of the most common complications after thoracic surgery. In our department, the surgeons and advanced nurse practitioners (ANPs) have setup a nurse-led clinic for assessment patients with ambulatory chest drains. We are going to share our initial pilot study and subsequent protocol which was established by surgeons and ANPs.

Methods: The protocol was divided into two stages:

I- Management inpatients with air leak: Establish criteria to help in decision-making to switch from digital drain to ambulatory drain and criteria for discharge.

II- Management outpatient clinic (led by ANPs): Establish criteria for assessment of patients with ambulatory chest drain and when to remove the drain.

A pilot study was performed involving 15 patients who were suitable for the Nurse Led Patient Ambulatory System (PAS) clinic. The mean in-hospital LOS was 6.87 days. The mean day of switching to a PAS was 5.3 days.

Two patients were readmitted to hospital from the clinic. Another 2 patients had their drains removed at a 2nd visit. The remaining patients (n=11, 74%) had their drains removed on the first visit.

Results: Stage I: Check list for inpatient assessment including questions about clinical and physical fitness for discharge. If the drain is on low suction (< -0.8kpa) for more than 24 hours and air leak is <100 kpa we will switch the drain into portable one and repeat the CXR, if it looks acceptable the patient can be discharged.

Stage II: Assess patients in outpatient clinic by the ANP, if physical examination and drain output is acceptable then the drain can be removed. If there are any worrisome findings, the drain is retained and advice is sought from the surgeon

Conclusion: Establishing clear criteria and guidelines to help the ANPs provide this service will improve their confidence. This leads to improved delivery of postoperative care in the thoracic surgery department and encourages early discharge.



Pre-operative chest X-ray in thoracic surgery- QIP Ghaith Qsous, Sanjeet Singh, Fezan Mughal, George Kaimasidis Malcolm Wil Department of Cardiothoracic Surgery, The Royal Infirmary of Edinburgh, Edinburgh

Introduction: The cost of a simple chest X-ray is around **£55**. The traditional protocol was for all patients to undergo an x-ray on admission day as part of pre-operative work-up.

The current guidelines suggest that CT scan should be performed within 6-8 weeks before lung resection.

Our aim is to clarify if there is any benefit of the pre-operative CXR on admission and the potential consequences to the healthcare economics while considering the patient's perspective.

Methods: Inclusion criteria: 1- Elective admissions for thoracic surgery. 2-Lung resection. Exclusion criteria: 1- Patients referred from other hospitals. 2-Cardiac patients.

50 patients were selected using a random number generator divided equally into two groups.

Group 1 included 25 patients who had CXR preoperatively and group 2 included 25 patients who didn't have CXR preoperatively.

Results: The average time between last CT scan and surgery was 44 days vs. 33 days in group 1 and 2 respectively. 61% of patients in group 1 had CT scan within 6 weeks from surgery. In the second group, 71% of patients had CT scan within 6 weeks from surgery.

Also, 22% of patients in group I had lesions not discernible on CXR such as semi-solid lesions and subcentimeter nodules.

Preoperative CXR couldn't identify patients with mediastinal disease (advance disease). The preoperative CXR in this group didn't change the treatment plan for any patients.

Conclusion: In this small group of patients the results showed that preoperative CXR is done routinely without clear indications and as a result didn't alter the treatment plan nor identify advanced stage lung cancer which would result in a change of the surgical plan.

From this pilot study, we estimate savings of between 880£ to 1375£ alongside reducing the service burden to the radiology departments.



A PROSPECTIVE CASE SERIES EVALUATION OF A NOVEL MEDICINE OF THE ELDERLY LIAISON TO NEUROSURGERY SERVICE

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What's the problem?

Guideline	Standard
British Geriatric Society World Guidelines for Falls Prevention	Falls risk assessment and bone health assessment
London Major Trauma System Guidelines	Comprehensive Geriatric Assess- ment including delirium assessment within 72 hours
Centre for Perioperative Care Guidelines	Comprehensive Geriatric Assess- ment including delirium assessment

As the population ages, more frail patients need neurosurgery and they have specific care needs that are difficult to meet with traditional neurosurgical models of care (see table). Do we train neurosurgeons to deliver this care or do we outsource it?

What's the solution?

- One way of sharing expertise between surgery and MoE is a liaison service
- We established an MoE liaison to Neurosurgery service in Feb 2021
- Consists of one whole time equivalent Specialty Doctor
- We aim to review frail inpatients over the age of 70 twice weekly
- · We lead a weekly multidisciplinary team meeting
- Both elective and trauma patients are reviewed
- · We deliver comprehensive geriatric assessment

Comprehensive geriatric assessment: a thorough review of all factors affecting an individual with regular review. Therapy colleagues are essential! There is strong evidence that this improves mortality and dependence in other surgical settings.

Does it work?

Standard	Completed	Not completed
Falls risk assessment	65 (84%)	12 (16%)
Bone health assess- ment	50 (65%)	27 (35%)
CGA within 72 hours -From referral	71 (92%)	6 (8%)
CGA within 72 hours -From admission*	52 (67%)	26(33%)

*"Weekend effect", some patients seen by other geriatricians



Data was collected from August-December 2022: 110/501 (22%) patients in neurosurgical wards were referred i.e. were thought to be frail 78 patients were suitable, all of whom got CGA 64% of patients had surgery, around half of these were burrholes for chronic subdural haematoma

43% of patients had delirium Median length of stay was 12 days

Data reflects being 1WTE doctor with inevitable gaps in provision

MOE LIAISON SUPPORTS MEETING NATIONAL STANDARDS IN NEUROSURGERY

Anatomical Segmentectomies In A Universal Uniportal Video-Assisted Thoracoscopic Surgery (UVATS) Thoracic Centre During Covid-19 Pandemic: Evaluation of Outcome.

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Background

The Covid-19 pandemic has created enormous pressure in hospitals throughout UK and this has led to cancellation and reduction of elective procedures dramatically. By adapting the uniportal video-assisted thoracoscopic surgery(UVATS) segmentectomies with an innovative perioperative Covid-free pathway, we were able to perform elective thoracic surgery without a hitch even during this critical period.

Objectives

Our aim is to determinate the feasibility, effectiveness, safety and surgical outcomes of UVATS segmentectomies performed during Covid-19 pandemic.

Material and method(s)

All patients who received UVATS segmentectomy for treatment of lung cancer or benign diseases from the overall thoracic surgical activity from January 2019 to July 2021 were identified. They were divided into 3 groups: 2019 (pre-pandemic), 2020 (peak) and 2021 (recovery). All cases adopted Covid-free measures which include testings, isolation, PPE and Covid-free colour-coded zoning with controlled access from preoperative preparation to post-operative care.

<u>Results</u>

A total of 106 patients underwent UVATS segmentectomy over the study period were grouped by years: Group A (January–December 2019), Group B (January-December 2020) and Group C (January–July 2021) with the results demonstrated as below:

		Group A	Group B	Group C	Total
		n=33	n=47	n=26	n=106
Age	Median	74	72	71.5	72
	Range	50	43	36	51
Gender (n)	Male	19	23	12	54
	Female	14	24	14	52
FEV1 (%)	Median	82	84	78	82.5
	Range	76	108	63	108
TLCO (%)	Median	77.5	87	77	80.5
	Range	73	77	95	95
Convertion to thoracotomy (n)		2	0	0	2
Repiratory Complication (%)		3.0	3.2	2.8	3.0
		(P>0.05)	(P>0.05)	(P>0.05)	(P>0.05)
Length of stay (days)		5.5	5.0	4.1	4.8
		(P>0.05)	(P>0.05)	(P>0.05)	(P>0.05)

Histology findings reported 27 non-malignant cases and 79 malignant cases. Postoperative 30-days in-hospital mortality was zero and none of the patients required HDU/ITU care post-operatively. No patient was infected with Covid-19 throughout their hospital stay.

Conclusion

By adapting to the crisis and optimizing the skills with resources available, we were able to perform more cases of UVATS segmentectomies during the pandemic, effectively and safely.