



Geriatric Vascular Surgery: Time to Build Optimal Resources for the Perioperative Care of Elderly and Fragile Vascular Patients

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“Beautiful young people are accidents of nature,
but beautiful old people are works of art.”
- Eleanor Roosevelt -

Statistics Korea announced that South Korea is expected to become a super aged society, defined as an aged population comprising >20% of the total population, in the year 2025 (Fig. 1). Korea became an aged society in 2017 as the ratio reached 14.2%. It rapidly increased to 15.5% in 2019, and it is expected to be 46.1% in 2065, which means that the Korean society is rapidly aging [1,2].

Because age is a major risk factor for many vascular diseases, including aortic aneurysm and atherosclerotic peripheral arterial disease, vascular surgeons are usually

familiar with treating elderly, fragile, and high risk patients. Aging and frailty are associated with poor outcomes after vascular surgery. Houghton et al. [3] performed a systematic review and meta-analysis of the frailty factors and outcomes of patients undergoing vascular surgery. They showed that frailty was associated with increased age, female sex, and lower body mass index. They concluded that frailty, but not sarcopenia, is associated with worse outcomes in patients undergoing vascular surgery. Well-validated frailty assessment tools should be developed and clinically available in the near future.

Frailty is usually defined as multidimensional vulnerability due to an age-associated decline in physiologic reserve [4]. Therefore, it is an impending issue for all surgi-

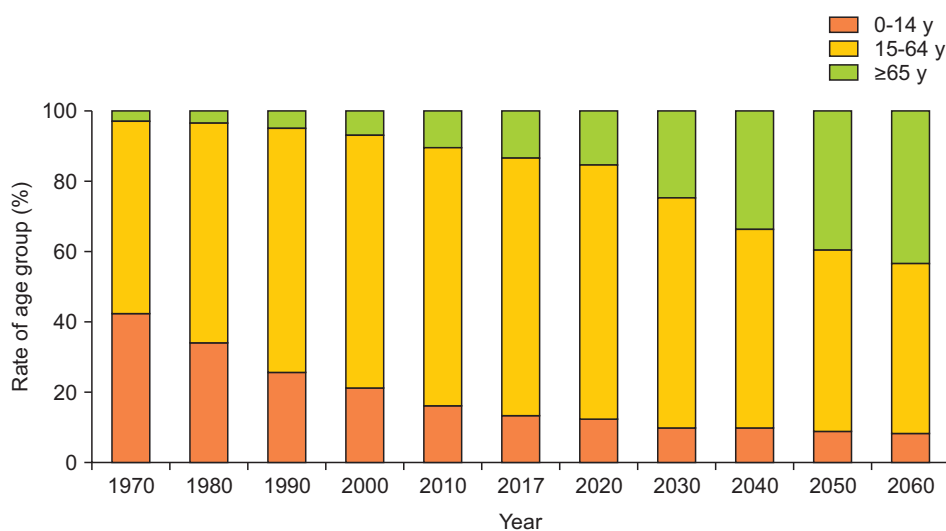


Fig. 1. Expected trend of Korean population according to age groups.

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cal disciplines, especially vascular surgery. Ambler et al. [4] reported that patient age, lack of mobility, polypharmacy, and emergency admission were significantly related to five year mortality in patients with abdominal aortic aneurysm, acute and chronic limb ischemia, and carotid disease. They emphasized that frailty factors are strong predictors of long term outcomes in vascular surgery. Gombert [5] emphasized the need to assess old patients appropriately, which will improve the treatment and help avoid harmful and possibly unnecessary surgery. Visser et al. [6] reported that frailty is associated with a higher risk of postoperative complications and discharge to a nursing home after vascular surgery. Moreover, frailty is a stronger predictor of postoperative outcomes than age alone.

In November 2019, Professor Kim SH at the National Cancer Center initiated a founder meeting for geriatric surgery with more than 10 experienced surgeons in South Korea. In November 2020, during the annual congress of the Korean Surgical Society, the Korean Society of Geriatric Surgery (KSGS) was launched and the first symposium, entitled "Problems in surgery of the elderly (multi-disciplinary approach)," was held that included expert speakers on medical assessment, nursing, anesthesia, and surgery. The present and future aspects of surgery for the elderly were discussed in detail. After being invited to serve as the director of planning and legislation of the KSGS, I have had the chance to study geriatric surgery, especially the American College of Surgeons (ACS) Geriatric Surgery Verification (GSV) program.

In late February of this year, the ACS verified the first hospital that met its standardized quality criteria for geriatric surgery. The honor went to Unity Hospital, Rochester, NY, USA, which committed to providing optimal care for older surgical patients. The ACS GSV program has been in place for more than five years, and it can now begin to fill a critical gap by providing specialized surgical care for older adults. The verified team of surgeons at Unity Hospital examined every surgical patient according to the ACS Standards for Geriatric Care. The team also applied a geriatric risk assessment and risk reduction to all elective and urgent surgical admissions across all surgical specialties to help the hospital staff know who is at higher risk of delirium, function decline, and other geriatric problems. And finally, the program helps their patients get discharged home sooner.

The ACS was founded in 1913 to raise the standards of surgical practice and improve the quality of care for all surgical patients. The ACS GSV program was introduced in July 2019 and provides a standardized surgical quality improvement framework to ensure the optimal care of geriatric surgical patients that is generalizable to hospitals regardless of size, location, or teaching status. Standards

for a multidisciplinary team approach included preoperative work-up, postoperative management, care transition, data collection, quality improvement, professional and community outreach, and research. The program is supported by the John A Hartford Foundation; >50 stakeholder organizations that represent the needs of older patients and families; advocacy and regulatory groups; health care professionals; and multiple medical and surgical specialists.

The best clinical practice guidelines from the ACS National Surgical Quality Improvement Program and the American Geriatric Society were published in 2015. The ACS also published an 89 page document entitled "Optimal resources for geriatric surgery." You can google "geriatric surgery" or visit the website and download the file at <https://www.facs.org/quality-programs/geriatric-surgery>. This document details many aspects of geriatric surgery, including the program scope and governance, facilities and equipment resources, personal and service resources, patient care protocols (including goals, decision-making, preoperative work-up, postoperative management, and transitions of care), data surveillance and systems, quality improvement, professional and community outreach, and research.

To improve the standards of surgical practice and the quality of care for all geriatric vascular patients in Korea, now is the time to come together, study, discuss, and establish Korean standards and optimal resources for perioperative care through a collaboration between the Korean Society for Vascular Surgery (KSVS) and the KSGS. KSVS and KSGS need to talk.

CONFLICTS OF INTEREST

The author has nothing to disclose.

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