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Morphometric Variations of the Left Gastric Artery in Thai Cadavers: A Tri-Parametric Analysis

Variaciones de la Arteria Gástrica Izquierda en Cadáveres Tailandeses: Un Análisis Triparamétrico

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SUMMARY: This is the first cadaveric study in a Thai population that simultaneously evaluates the origin, caliber, and bifurcation angle of the left gastric artery (LGA) using a tri-parametric approach, providing population-specific morphometric data relevant to gastrointestinal and hepatobiliary surgery. The LGA is a key vessel supplying the stomach and distal esophagus, and anatomical variations may complicate surgical access and increase intraoperative risks. Thirty formalin-fixed adult Thai cadavers (14 males, 16 females) were dissected using standard anatomical techniques to expose the celiac trunk and trace the LGA. Parameters recorded included origin site, internal diameter, and bifurcation angle. Branching patterns were classified, with interobserver agreement assessed using Cohen's kappa coefficient. Descriptive statistics, chi-square tests, Mann-Whitney U tests, and intra-class correlation coefficients were performed. Four distinct LGA origin types were identified: celiac trunk (80 %), abdominal aorta (10 %), splenic artery (3.3 %), and accessory left hepatic artery type (6.7 %). The mean bifurcation angle was 78.23 ± 21.46° (range: 35° - 120°), with 53.3 % between 61° - 90°. The mean internal diameter was 2.51 ± 0.66 mm, significantly larger in females than in males ($p = 0.026$). No sex differences were found in origin or bifurcation angle. This study provides novel morphometric data integrating LGA origin, caliber, and angulation in a single cohort. These findings underscore the importance of anticipating LGA variability to optimize surgical planning, risk stratification, and imaging interpretation, ultimately contributing to safer and more individualized gastrointestinal and hepatobiliary procedures.

KEY WORDS: Left Gastric Artery; Anatomic Variation; Stomach/blood supply; Hepatobiliary Surgical Procedures; Cadaver.

INTRODUCTION

The left gastric artery (LGA) is a major branch of the celiac trunk that ascends along the lesser curvature of the stomach and supplies both the stomach and the distal esophagus. It typically bifurcates into anterior and posterior branches, which form important anastomoses with the right gastric artery. Beyond its role in gastric perfusion, the LGA is essential for maintaining the esophageal blood supply and may occasionally give rise to accessory hepatic arteries, underscoring its clinical relevance in both gastrointestinal and hepatobiliary surgery. Accurate identification and preservation of the LGA during surgical procedures are critical for minimizing complications such as ischemia, hemorrhage, or delayed gastric emptying (Naidich *et al*., 1978; Ande *et al*., 2023).

Anatomical variations of the LGA are well documented. While approximately 96 % of cases originate from the celiac trunk, atypical origins from the abdominal aorta, splenic artery, or rarely the common hepatic artery have been reported (Saldarriaga *et al*., 2023; Vougadiotis *et al*., 2023). Such variations can complicate surgical procedures, increase the risk of inadvertent vascular injury, and affect postoperative outcomes (Alraddadi, 2021). Moreover, the LGA is clinically significant in conditions such as gastric ischemia, gastrointestinal bleeding, and gastrointestinal tumors (GISTs), which often arise in proximity to its branches (Ramaswamy *et al*., 2014). In these contexts, a precise understanding of LGA morphology can directly impact surgical decision-making and patient outcomes. In hepatobiliary and gastrointestinal surgeries-including gastric resections, liver transplantation, and transarterial chemoembolization (TACE)-preservation of the LGA is essential to maintain adequate perfusion. In TACE procedures, for example, inadvertent embolization of the

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LGA may lead to ischemic complications. Similarly, in liver transplantation, knowledge of the variant LGA anatomy is necessary to avoid compromising the gastric or hepatic blood supply (Ramaswamy *et al*., 2014). Despite advances in surgical imaging and minimally invasive techniques, unanticipated anatomical deviations continue to pose intraoperative challenges.

Although studies from Western and East Asian populations have described LGA variations (Torres *et al*., 2015; Juszczak *et al*., 2021; Iino *et al*., 2022), data focusing specifically on the Thai population remain scarce. Region-specific anatomical research is crucial, as vascular morphology can vary across populations, affecting surgical planning and outcomes. To the best of our knowledge, no previous study in Thailand has comprehensively evaluated the origin, caliber, and bifurcation angle of the LGA within the same cadaveric series (Naidich *et al*., 1978; Ande *et al*., 2023; Saldarriaga *et al*., 2023). Furthermore, few studies have integrated multiple morphometric parameters into a single analysis, making this investigation the first in the country to adopt a tri-parametric approach.

This single-center cadaveric study focused on three morphometric parameters of the LGA: origin, internal diameter, and bifurcation angle. All observations were obtained through direct anatomical dissection to ensure accuracy and eliminate imaging-related artifacts. Unlike previous studies that typically assessed a single parameter, our tri-parametric approach integrates all three within the same cohort, providing a more comprehensive anatomical profile. To our knowledge, this is the first study to establish population-specific reference data for the Thai population.

MATERIAL AND METHOD

A total of 30 embalmed adult cadavers (14 males and 16 females) were included, with ages ranging from 52 to 95 years (mean: 79.37 ± 10.65). The sample size was determined a priori on the basis of recommendations for morphometric anatomical studies where variability in vascular parameters is moderate. Power analysis ($a = 0.05$, power = 0.8) indicated that a minimum of 26 specimens would be sufficient to detect a medium effect size (Cohen's $d \approx 0.5$) when comparing the vessel diameter between sexes. The number was rounded up to 30 to account for potential specimen exclusions due to anatomical disruption or incomplete data. This approach aligns with previous cadaveric vascular studies of similar scope, ensuring both statistical validity and feasibility within the constraints of available specimens.

The conclusion criterion was a well-preserved abdominal anatomy with no evidence of trauma, pathology, or prior abdominal surgery affecting vascular structures. Cadavers showing distortion, decomposition, or anatomical disruption of the LGA were excluded. Cadavers that presented with grossly visible tumors in the upper abdominal cavity that caused direct compression or distortion of the LGA were excluded. Additionally, cadavers from extreme age groups (younger than 20 years or older than 95 years) were excluded to avoid potential confounding effects of age-related vascular changes, such as atherosclerosis, calcification, or reduced vessel elasticity that could bias morphometric measurements.

All morphometric measurements- including bifurcation angles and the internal diameter were performed by one primary researcher and independently reviewed by two board-certified anatomists with more than 10 years of dissection and morphometric analysis experience. Thus, methodological consistency was ensured, and observer bias was reduced through independent verification.

A standard protocol wall is used for all dissections. A midline incision from the xiphoid process to the pubic symphysis was made to expose the celiac trunk. The gastropancreatic ligament was dissected to access the celiac trunk, and the LGA was traced from its origin to its terminal branches along the lesser curvature of the stomach. Variations in the origin of the LGA including atypical branches from the abdominal aorta, splenic artery, or common hepatic artery, were documented according to established classification systems. Accessory or anomalous hepatic branches were also noted. High-resolution photographs supplemented the written observations.

Morphometric measurements

Bifurcation angle (BA): The BA of the LGA relative to its parent vessel was measured with a goniometer in the sagittal plane. The stationary arm was aligned with the main vessel axis, and the moving arm was rotated clockwise along the course of the LGA. Measurements were repeated after a two-week interval to assess the intraobserver reliability. The angles were categorized into five groups: Group 1 (0-30°), Group 2 (31-60°), Group 3 (61-90°), Group 4 (91-120°), and Group 5 (> 120°).

The internal (luminal) diameter was selected as the primary vessel caliber parameter rather than the external diameter for two key reasons: (1) Formalin-based tissue preservation effects - Embalming with formalin solutions leads to cross-linking of tissue proteins, which can cause contraction of the arterial wall and alter external dimensions due to stiffening and dehydration. Internal diameter measurements, taken at the preserved lumen, are less affected by variable

wall thickness changes and thus more accurately reflect the functional conduit size. (2) Relevance to vascular flow dynamics. From a hemodynamic perspective, the internal diameter is directly proportional to the fourth power of flow capacity according to Poiseuille's law. Therefore, it provides a more physiologically meaningful parameter for evaluating potential clinical implications, such as catheterization, feasibility, perfusion adequacy, and surgical anastomosis planning.

Arterial diameter: The internal horizontal and vertical diameters of the LGA were measured using a calibrated manual Vernier caliper. Transverse sections were taken 0.5 mm distal to the arterial origin. The horizontal diameter was defined as the maximum transverse lumen width, and the vertical diameter was defined as the maximum lumen height. Each measurement was repeated after a two-week interval to assess the intraobserver reliability.

Data on the LGA origin, caliber, and BA were systematically recorded. Quantitative data are reported as the mean ± standard deviation (SD). Sex-based differences were analyzed using the chi-square test for categorical data and the Mann-Whitney U test or Student's t-test for continuous variables, as appropriate. Interobserver and intraobserver reliabilities for continuous variables were evaluated with the intraclass correlation coefficient (ICC), while agreement on categorical variables was assessed using Cohen's kappa coefficient. Statistical significance was set at a p-value ≤ 0.05. Analyses were performed using the IBM SPSS programme, version 29.0.

Ethical approval was obtained from the Siriraj Institutional Review Board, Faculty of Medicine Siriraj Hospital, Mahidol University (protocol no. 694/ exemption). All cadavers were obtained through the official body donation program, in accordance with national and institutional guidelines for cadaveric research.

RESULTS

Variations in the Branching Pattern

Four distinct origin types of the LGA were identified. The conventional origin from the celiac trunk (Type A) was the most frequently observed type, accounting for 80.0 % of the cases (n = 24). Other variations included origin from the abdominal aorta (Type B) in 10 % (n = 3), from the SA (Type C) in 3.33 % (n = 1), and the accessory type (Type E) in 6.67 % (n = 2) (Fig. 1 and Table I). Most of the specimens (93.33 %; n = 28) had a single LGA branch, whereas 6.67 % exhibited multiple branches (Fig. 2). Among the two specimens with multiple branches, one was obtained from a 76-year-old male and the other was obtained from a 93-year-old female.

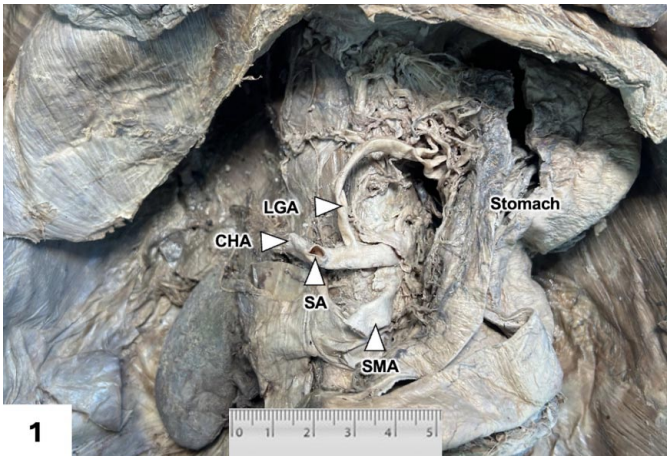


Fig. 1. Depicting the conventional branching pattern (type A) of the celiac trunk and its branches. LGA: left gastric artery, CHA: common hepatic artery, SA: splenic artery, SMA: superior mesenteric artery.

Table I. The variations of the left gastric artery origin in the present study. LGA: left gastric artery.

Site of LGA origin	Males (n=14)	Female (n=16)	*p-value*
Coeliac trunk	10 (71.43 %)	14 (87.50 %)	0.274
Aorta	2 (14.29 %)	1 (6.25 %)	
Splenic	0 (0 %)	1 (6.25 %)	
Accessory	2 (14.29 %)	0 (0 %)	

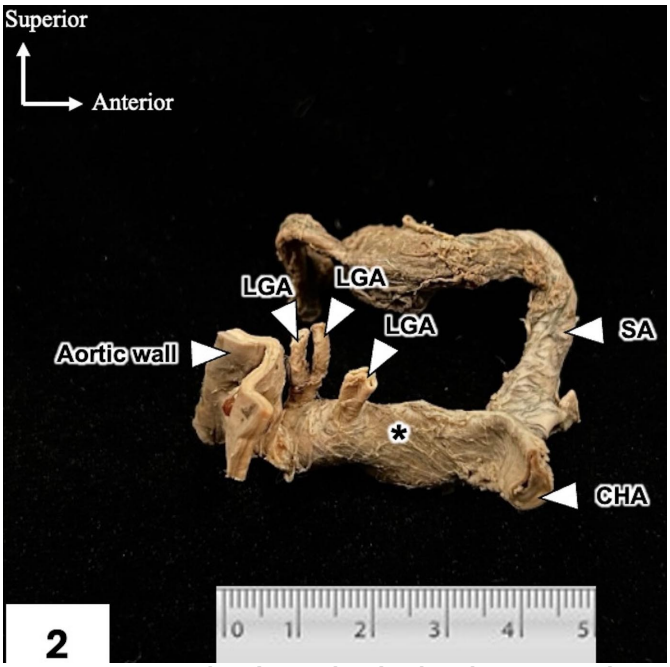
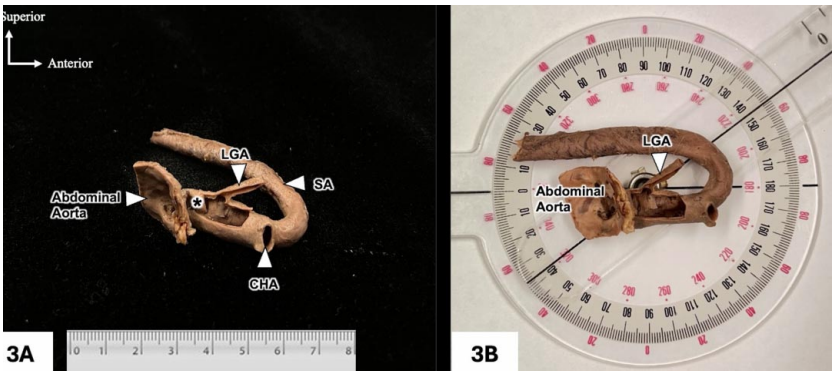
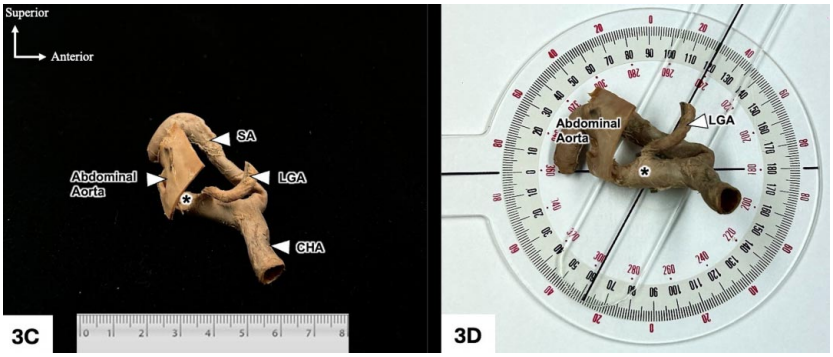


Fig. 2. Demonstrates the celiac trunk and its branches at a sagittal view, showing multiple branches of the left gastric artery. LGA: left gastric artery, CHA: common hepatic artery, SA: splenic artery, Asterisk: celiac trunk.

Sex-based comparisons revealed that 87.50 % of the females and 71.43 % of the males exhibited the classic branching pattern, with variations present in 12.50 % and 28.57 %, respectively. Statistical analysis indicated that the difference in LGA branching between the sexes was not statistically significant (p = 0.274). Observer agreement analysis for the classification of LGA origin demonstrated complete agreement for all classifications, with a Cohen's kappa value of 1.000.



Figs. 3A-B. Show the celiac trunk and its branches at sagittal view (A) and the bifurcation angle measurement of the left gastric artery categorized in group 2 (B). LGA: left gastric artery, CHA: common hepatic artery, SA: splenic artery, Asterisk: celiac trunk.



Figs. 3C-D. Show the celiac trunk and its branches at sagittal view (C) and the bifurcation angle measurement of the left gastric artery categorized in group 3 (D). LGA: left gastric artery, CHA: common hepatic artery, SA: splenic artery, Asterisk: celiac trunk.

Figs. 3E-F. Show the celiac trunk and its branches at sagittal view (E) and the bifurcation angle measurement of the left gastric artery categorized in group 4 (F). LGA: left gastric artery, CHA: common hepatic artery, SA: splenic artery, Asterisk: celiac trunk.

Angle of Bifurcation of the LGA

Bifurcation angles (BAs) of the LGA relative to its origin were categorized into five groups: 0-30° (0 %), 31-60° (16.67 %, n = 5), 61-90° (53.33 %, n = 16), 91-120° (30 %, n = 9), and > 120° (0 %) (Figs. 3A-3F). The overall mean BA was 78.23 ± 21.46°, ranging from 35° to 120° (Table II).

When stratified by sex, males had a mean BA of 75.39 ± 23.22°, and females had a mean BA of 80.55 ± 20.26°, with no significant difference observed between the sexes (p = 0.513). Both intraobserver (ICC = 0.951, 95 % CI [0.910,0.975], p < 0.001) and interobserver reliabilities (ICC = 0.987, 95 % CI [0.973,0.994], p < 0.001) were excellent.

Diameters of the LGA

The mean internal diameter of the LGA was 2.51 ± 0.66 mm. The average horizontal and vertical diameters were 2.25 ± 0.77 mm (range: 1-4 mm) and 2.77 ± 0.88 mm (range: 1-4 mm), respectively (Table III).

Compared with males (2.26 ± 0.60 mm), females had a significantly greater mean diameter (2.73 ± 0.64 mm) (p = 0.026). The average horizontal and vertical diameters were 2.50 ± 0.80 mm and 2.97 ± 0.87 mm for females, and 1.96 ± 0.66 mm and 2.55 ± 0.88 mm for males, respectively. Further analysis revealed no significant sex difference in the vertical diameter (p = 0.200), but the horizontal diameter was significantly larger in females (p = 0.049).

Table II. Summarizes the evaluation of the left gastric artery's overall bifurcation angles, and comparison between males and females. LGA: left gastric artery, BA: bifurcation angle, SD: standard deviation.

	Males		Females		Overall	
LGA BA	**Average ± SD**	**Min-Max**	**Average ± SD**	**Min-Max**	**Average ± SD**	***P***
Angle	75.39 ± 23.22°	35-115°	80.55 ± 20.26°	45-120°	78.23 ± 21.46°	0.51

Table III. Summarizes the averaged overall, horizontal, and vertical diameters of the left gastric artery.

	Overall		Males		Females	
	Average ± SD	**Min-Max**	**Average ± SD**	**Min-Max**	**Average ± SD**	**Min-Max**
Horizontal Diameter	2.25 ± 0.77	1.00-4.00	2.50 ± 0.80	1.00-3.00	1.96 ± 0.66	1.00-4.00
Vertical Diameter	2.77 ± 0.88	1.00-4.00	2.97 ± 0.87	1.50-4.00	2.55 ± 0.88	1.00-4.00
Overall Diameter	2.51 ± 0.86	1.00-4.00	2.73 ± 0.64	1.00-4.00	2.26 ± 0.60	1.00-4.00

The intraobserver reliability for diameter measurements demonstrated excellent agreement (vertical diameter ICC = 0.994; horizontal diameter ICC = 0.995; $p < 0.001$), as did the interobserver reliability (vertical diameter ICC = 0.996; horizontal diameter ICC = 0.992; $p < 0.001$).

DISCUSSION

To the best of our knowledge, this is the first tri-parametric cadaveric study in a Thai population integrating LGA origin, caliber, and bifurcation angle within a single analysis. Previous studies have typically reported only one or two of these parameters or were performed in non-Thai cohorts (Table IV). Our work provides novel, population-specific morphometric data that can directly inform preoperative planning, particularly in regions with a high burden of gastric cancer and hepatobiliary surgery. This tri-parameter approach provides a more holistic understanding of the LGA variation compared to prior studies that typically focused on the branching patterns or vessel diameters alone. Such integrated morphometric data are essential in guiding surgical and interventional radiologic practices with greater anatomical precision.

Given the frequency of gastric and hepatobiliary procedures such as gastrectomy, D2 lymphadenectomy, and TACE, a detailed understanding of the LGA's anatomical variations is crucial. Variants may complicate operative dissection, increase bleeding risk, compromise hepatic or gastric perfusion, and affect oncological outcomes (Mocan, 2021; Jalamneh *et al*., 2023). Preoperative mapping of vascular anatomy has been shown to mitigate these risks, underscoring the importance of population-specific anatomical research.

In the present study, a conventional LGA originating from the celiac trunk was identified in 80 % of the specimens, which is consistent with prior studies reporting rates of 68 %–96 % (Naidich *et al*., 1978; Saldarriaga *et al*., 2023). Variants included those originating from the abdominal aorta (10 %), splenic artery (3.3 %), and accessory branches (6.7 %). These findings align with those of regional cadaveric and imaging studies, including those from the Philippines, India, Korea, and Japan, which also describe a predominance of classical trifurcation but with a minority prevalence of the LGA originating from the AA (10 %), exceeding the rates reported in some prior studies (Naidich *et al*., 1978; Torres *et al*., 2015; Juszczak *et al*., 2021), which may reflect ethnic or regional variability.

An important clinical finding was the presence of an accessory LHA arising from the LGA in 6.7 % of the specimens. This prevalence is comparable to that reported in East Asian populations (Cirocchi *et al*., 2020; Iino *et al*., 2022). Such variants are highly relevant in gastrectomy and LDLT, as the inadvertent ligation of an accessory or replaced LHA can precipitate significant postoperative hepatic ischemia (Lee *et al*., 2021). Although some authors suggest preserving an accessory LHA when the LGA diameter is ≥ 5 mm (Kim *et al*., 2016), the maximum mean diameter recorded in our series was 3.5 mm, raising concerns regarding adequate perfusion if preservation is attempted. These findings reinforce the need for meticulous preoperative vascular assessment and the consideration of variant anatomy in surgical planning.

The mean LGA diameter in our series was 2.51 ± 0.66 mm, which is consistent with the findings for prior Asian studies (Yan *et al*., 1998; Khalil *et al*., 2024), but smaller than the diameters reported in some Western cohorts (Silveira *et al*., 2009; Batko *et al*., 2024). Diameters < 2 mm may pose technical challenges during catheter-based interventions, increasing the risk of procedural failure (Lanza *et al*., 2025). We also observed a statistically significant sex difference, with females demonstrating larger mean diameters than males did. Although the clinical impact of these findings warrants further study, such data may inform sex-specific planning of endovascular interventions. Duplicated LGAs were observed in 6.7 % of the specimens, which is higher than the rates typically reported (<1 %). These variants are clinically significant given that preoperative imaging may fail to detect them, leading to unexpected intraoperative bleeding (Taki *et al*., 2021; Hayashi *et al*., 2023).

Our work also highlights the clinical relevance of these findings in the context of the gastric cancer burden in Thailand, which accounts for 3.2 % of all cancers in men

and 1.9 % in women, with an age-standardized incidence rate of 3.1 per 100,000 person-years in males and 2.5 per 100,000 person-years in females (National Cancer Institute of Thailand, 2024, 2025).

To date, few studies have examined LGA branching angles. We report a mean BA of 78.23 ± 21.46°, with the majority (53.3 %) falling between 61° and 90°. While no significant sex difference was found, we observed a strong positive correlation (although not significant) between BA and LGA diameter. Prior work in carotid and coronary arteries has shown that wider BAs are associated with altered WSS and an increased risk of atherosclerosis (Markl *et al*., 2010; Saho & Onishi, 2016). Although our data did not demonstrate statistical significance, likely owing to sample size limitations, these findings suggest a potential hemodynamic role for the LGA branching geometry that merits further investigation with larger, radiologically based cohorts.

The present findings underscore the clinical necessity of anticipating LGA variants during gastric and hepatobiliary surgery and interventional radiology. In particular, the relatively high frequency of AA-origin and accessory LHAs highlights the importance of preoperative vascular mapping in the Thai population. Future studies should incorporate larger sample sizes, advanced imaging modalities, and hemodynamic modelling to better elucidate the functional significance of LGA branching geometry. In the Thai clinical context, these findings are particularly relevant given the rising burden of gastric and hepatobiliary surgery. Anticipating LGA variations may help Thai surgeons and interventional radiologists reduce intraoperative risks, optimize preoperative vascular mapping, and improve outcomes in procedures such as gastrectomy, liver transplantation, and TACE. Incorporating these data into surgical education and radiological training in Thailand may enhance anatomical awareness and patient safety.

Strengths and Limitations

Strengths of this study include its tri-parametric design, which integrates LGA origin, caliber, and bifurcation

Table IV. Shows data of the present study in comparison with data from other studies relating to the angle of bifurcation of the left gastric artery, coronary arteries, and cerebral arteries. BA: bifurcation angle, LGA: left gastric artery, CCTA: coronary computed tomography angiography, LAD: left anterior descending, LCx: left circumflex artery, CAD: coronary artery disease, MCA: middle cerebral artery.

Category	Study	Country	Sample and method	Conclusion of BA
Left gastric artery	Present Study (2025)	Thailand	30 Thai cadavers, anatomical dissection	(78.23 ± 21.46°) First cadaveric LGA BA in Thai population
	Batko *et al*. (2023)	Poland	105 decedents; 3D reconstructions	(126.4 ± 31.2°) CT-based anatomy of LGA origin from celiac trunk
Coronary arteries	Beton *et al*. (2017)	China	201 patients, CCTA	Dynamic bifurcation angles vary with systole/diastole
	Geerlings-Batt & Sun (2022)	International	Review of 13 CCTA/angiography studies	Wide LAD-LCx angles associated with CAD
	Sun *et al*. (2021)	China	30 patients, CCTA & CFD	Larger angles correlated with disturbed flow
	Ki *et al*. (2020)	South Korea	462 PCI patient's registry	LAD ≥152° is linked with higher target lesion failure
	Zhang *et al*. (2015)	China	1200 bifurcations, angiographic review	Larger angles are associated with higher side-branch artery occlusion
	Sun (2013)	Australia	50 patients, CCTA	Larger left BA associated with diseased left coronary artery
Cerebral arteries	Zhang *et al*. (2020)	Poland/China	CTA of 122 aneurysm vs 50 controls	MCA bifurcation aneurysms show an association with large BA
	Baharoglu *et al*. (2014)	Japan	146 3D rotational angiograms	MCA bifurcations with aneurysms show an association with larger branching angles
	Zhang *et al*. (2018)	China	195 patients, 3D angiographic	BA bifurcation aneurysms are wider bifurcation angles
	Cmiel-Smorzyk *et al*. (2022)	Poland	147 patients, 3D CTA	Wider total BA may be associated with intracranial aneurysms formation

angle within the same cadaveric cohort, and its focus on a Thai population that is underrepresented in the anatomical literature. All dissections were performed using standardized protocols and independently validated by experienced anatomists, ensuring methodological rigor and excellent inter- and intra-observer reliability.

However, some limitations should be noted. The sample size was modest and derived from a single institution, which may limit generalizability. Formalin fixation may have affected vessel caliber and branching angle measurements, and the absence of radiologic correlation or functional hemodynamic assessment restricts direct clinical extrapolation. Larger, multicenter studies incorporating imaging and hemodynamic modeling are needed to confirm and extend these findings.

CONCLUSION

This study presents the first comprehensive cadaveric assessment of the LGA in a Thai population, evaluating simultaneously its origin, caliber, and bifurcation angle. Four branching patterns were identified, with the classical celiac trunk origin predominating (80 %). Although no sex-related differences were observed in branching pattern or bifurcation angle, females exhibited significantly larger mean diameters than males. These findings offer population-specific morphometric data that are highly relevant for gastrectomy, D2 lymphadenectomy, liver transplantation, and catheter-based interventions. Integrating this anatomical knowledge into preoperative imaging interpretation and surgical planning may help minimize hemorrhage, preserve gastric and hepatic perfusion, and improve patient-specific outcomes. Future multicenter studies incorporating advanced imaging and larger cohorts are warranted to further validate these findings and explore their functional significance.

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BAIMAI, S.; SUPHANPAPHAKUL, T.; KAENSA, C.; SRICHAROENVEJ, S. & PHUANGKET, R. Variaciones morfométricas de la arteria gástrica izquierda en cadáveres tailandeses: Un análisis triparamétrico. *Int. J. Morphol., 44(1)*:71-78, 2026.

RESUMEN: Este es el primer estudio cadavérico en una población tailandesa que evalúa simultáneamente el origen, el calibre y el ángulo de bifurcación de la arteria gástrica izquierda (AGI) mediante un enfoque triparamétrico, proporcionando datos morfométricos específicos de la población relevantes para la cirugía gastrointestinal y hepatobiliar. La AGI es un vaso clave que irriga el estómago y el esófago distal, y las variaciones anatómicas pueden complicar el acceso quirúrgico y aumentar los riesgos intraoperatorios. Treinta cadáveres tailandeses adultos fijados con formalina (14 hombres, 16 mujeres) fueron disecados utilizando técnicas anatómicas estándar para exponer el tronco celíaco y trazar la AGI. Los parámetros registrados incluyeron sitio de origen, diámetro interno y ángulo de bifurcación. Los patrones de ramificación fueron clasificados, con concordancia inter observador evaluada utilizando el coeficiente kappa de Cohen. Se realizaron estadísticas descriptivas, pruebas de chi-cuadrado, pruebas U de Mann-Whitney y coeficientes de correlación intraclase. Se identificaron cuatro tipos distintos de origen de AGI: tronco celíaco (80 %), aorta abdominal (10 %), arteria esplénica (3.3 %) y tipo de arteria hepática izquierda accesoria (6.7 %). El ángulo de bifurcación medio fue de 78.23 ± 21.46° (rango: 35° - 120°), con 53.3 % entre 61° - 90°. El diámetro interno medio fue de 2,51 ± 0,66 mm, significativamente mayor en mujeres que en hombres (p = 0,026). No se encontraron diferencias de sexo en cuanto al origen ni al ángulo de bifurcación. Este estudio proporciona datos morfométricos novedosos que integran el origen, el calibre y la angulación de la AGI en una sola cohorte. Estos hallazgos subrayan la importancia de anticipar la variabilidad de la AGI para optimizar la planificación quirúrgica, la estratificación del riesgo y la interpretación de las imágenes, lo que en última instancia contribuye a procedimientos gastrointestinales y hepatobiliares más seguros e individualizados.

PALABRAS CLAVE: Arteria gástrica izquierda; Variación anatómica; Irrigación estómago; Procedimientos quirúrgicos hepatobiliares; Cadáver.

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