## News

# Consensus research priorities for "Brazilian Butt Lift" (BBL) in the UK: A BAAPS-led Delphi survey of expert clinicians and researchers

Due to the unexpected rise in mortalities of patients undergoing "Brazilian Butt Lift" (BBL), national and international attention in the literature has been drawn to patient safety in gluteal fat grafting. Considering this, the British Association of Aesthetic Plastic Surgeons (BAAPS) conducted a Delphi study to further clarify the safety profile of BBL surgery.

BAAPS reached out to 10 consultant plastic surgeons who were peernominated experts in the field of BBL surgery and autologous fat grafting. Among these, there were 2 internationally recognized surgeons renowned in BBL surgery literature, including Dr. Kalaaji.

The results of this study are of tremendous help in setting research priorities for the safety of gluteal fat grafting, thereby ensuring the safety of BBL surgery in the UK.





# Correspondence and Communications

# Consensus research priorities for "Brazilian Butt Lift" (BBL) in the UK: A BAAPS-led Delphi survey of expert clinicians and researchers

Dear Sir,

The British Association of Aesthetic Plastic Surgeons (BAAPS) is committed to promoting excellence in aesthetic plastic surgery and patient safety. The modified Delphi approach is an established method for reaching a consensus opinion among a group of experts in a field. This approach was used to survey the entire membership of the Association of Coloproctology of Great Britain and Ireland (ACPGBI) to reach a consensus on prioritising clinical research questions in colorectal disease. It was also more recently used by the British Association of Plastic, Reconstructive and Aesthetic Surgery (BAPRAS) to identify research priorities in plastic surgery.

"Brazilian Butt Lift" (BBL) has received national and international attention in the literature due to the unexpected significant mortalities that have arisen.<sup>3</sup> Cárdenas-Camarena published "Deaths Caused by Gluteal Lipoinjection: What Are We Doing Wrong?" and highlighted fat embolism, possibly via macro- and micro venous entry into the circulation as a cause for concern.<sup>3,4</sup> Together, the American Society of Plastic Surgeons, American Society for Aesthetic Plastic Surgery, International Society of Aesthetic Plastic Surgery, International Society of Plastic Regenerative Surgeons and International Federation for Adipose Therapeutics and Science, formed the Task Force for Safety in Gluteal Fat Grafting with the goal of conducting studies to develop specific safety guidelines. Considering this, BAAPS advised its members to halt BBL surgery until further research was available, in order to further elucidate the safety profile of BBL surgery.

In order to address the BAAPS position on BBL surgery, BAAPS contacted 10 Consultant Plastic Surgeons who were peer-nominated experts in the fields of BBL surgery, autologous fat grating and/or research protocol. This included 2 internationally recognised surgeons renowned in BBL surgery literature (Table 1), and 8 UK based surgeons who perform a large volume of fat grafting and BBL surgery. Following a focus group meeting held in London with these surgeons, several decisions were taken, and the notion of a Delphi study was proposed to better elucidate UK research priorities of BBL surgery to

help guide BAAPS. This letter will therefore describe this approach.

The focus group participants were invited to submit pertinent BBL research priorities. They subsequently participated in an online, 2-round, modified Delphi consensus exercise. The surveys were conducted using a web-based tool (Google forms) via an online link and sent via email from the BAAPS secretariat. Table 1 highlights the invitation email. The email was sent to the 10 participants in each round and consisted of 11 statements.

In each round, participants were asked to score the research statements on priority, based on a 5-point numeric Likert scale, where 1= very unimportant, 2= unimportant, 3= neutral, 4= important, and 5= very important.

Eight participants responded in round 1 (i.e. 80% response rate). A steering group analysed the results to identify those questions ranked as being of highest priority. The survey was enriched considering the findings (in keeping with Delphi methodology) and a second survey was sent out 6 weeks later whereby 7 participants responded in this 2nd round (i.e. 70% response rate). The consensus threshold for inclusion of a research priority was taken to be >75% scoring a positive result (i.e. 4 or 5 on the Likert scale). This effectively means that 75% or more of the respondents i.e. at least 6 of the 7 respondents in the 2nd round, needed to rank the research statement as "important" or "very important" for that research statement to become a research priority. Table 2 highlights the results of round 2 of the Delphi process.

The 3 most important research priorities that this expert group agreed to were as follows:

- (1) Establishing demand for BBL surgery in the UK (86% of respondents)
- (2) Undertaking studies (e.g. cadaveric and/or clinical) to confirm safety of fat injection planes and routes of fat migration (86% of respondents)
- (3) Defining safe technical tips: (e.g. volumes of injection, plane(s) of injection, cannula type, cannula diameter (86% of respondents)

The UK BBL taskforce has also recently conducted a member-wide survey to establish BBL practice and thoughts amongst BAAPS members; the taskforce will aim to publish this data soon. With regards to planes of injection, Del Vecchio et al. have published their cadaveric data on safe planes and routes of fat migration; their recommendation has always advocated subcutaneous injection (and the avoidance of intra-muscular/deep injections). The notion of safe volumes has also been discussed at meetings; Del Vecchio and Wall published their large series

#### **Table 1** Round 2 invitation email to Delphi participants (transcript).

BAAPS Brazilian Buttock Lift (BBL): Delphi Study Phase 2

The BAAPS advice against BBL surgery in the UK was set in October 2018. The BBL task force set by Mr. Paul Harris, president of BAAPS, met at the RSM in November 2018 to discuss and assess the necessary steps to ensure this procedure is only performed once its safety has been reconfirmed in the UK. We were joined by two international experts, Dr. Del Vecchio from the USA and Dr. Kalaaji from Norway, to share their specialist experience, research and guidance.

Following the focus group led by this international and national expert group, the task force agreed that the first step forward was a Delphi study to assess the view of our BAAPS BBL experts. The aim is to identify what aspects are deemed most important in guiding the research output that needs to be conducted to map out the future work/ agenda for the task force. Phase 1 of the Delphi study has been concluded. We seek your expertise for Phase 2 now.

We would be most grateful if you would please spare 3 minutes to complete this survey by answering each question. Each question is presented as a topic guide. This is a Likert-based survey, where 5 = very important, 4 = important, 3 = neutral, 2 = unimportant and 1 = very unimportant (in terms of your views on this topic warranting further research).

BAAPS (British Association of Aesthetic Plastic Surgeons; BBL ("Brazilian Butt Lift").

Table 2 Results of round 2 of the Delphi process.

Research statement	Number of respondents ranking it as a 4 or 5 i.e. to meet inclusion threshold as a research priority
Establishing patient demand for BBL in the UK	6 (86%)
Establishing BBL surgical tourism (i.e. how many UK patients fly abroad for BBL surgery)	4 (57%)
Establishing the complications from BBL surgical tourism in the UK (i.e. how many patients who fly abroad return with complications that are treated here in the UK)	5 (71%)
Establishing the number of UK complications from BBL surgery (i.e. of complications from BBL surgery in the UK)	4 (57%)
Establishing how many UK surgeons currently perform BBL	5 (71%)
Undertaking studies (e.g. cadaveric and/or clinical) to confirm safety of fat injection planes and routes of fat migration. This question refers to how important you feel it would be to consider cadaveric or clinical work to confirm safety of fat injection planes (i.e. similar to the US data that has been published, but to be able to provide UK data).	6 (86%)
Defining safe technical tips: e.g. volumes of injection, plane(s) of injection, cannula type, cannula diameter	6 (86%)
Defining fat grafting nuances for BBL: method of harvest, method of preparation, method of injection	4 (57%)
Starting a UK BBL registry for practising surgeons	4 (57%)
Exploring the role of training courses/programmes to ensure surgeons are credentialed to perform BBL safely	5 (71%)
Collaborating with international expertise in future work (e.g. teaming up with US colleagues to be able to provide stronger more definitive data)	5 (71%)

5 point Likert scale used: (where 1 = very unimportant, 2 = unimportant, 3 = neutral, 4 = important, 5 = very important). BBL (Brazilian Buttock Lift); UK (United Kingdom); US (United States). Bold = inclusion statement (i.e. meets > 75% threshold).

(>2000 patients) with grafted volumes between 275cc and 4.4L, with no cases of pulmonary fat embolism.<sup>5</sup> Due to the nature of this letter, we are limited to 5 references and hence cannot reference all the significant work that has recently been published on BBL surgery.

In conclusion, this Delphi study provides clarity regarding research priorities that BBL experts have deemed as most important for ensuring the safety of UK BBL surgery. These 3 research priorities represent a snapshot of expert opinion regarding the current feeling around BBL surgery. As further data becomes more available, research priorities and the BAAPS stance may change. It is anticipated that these Delphi results will set the research priorities for the safety of BBL

surgery in the UK and promote development of its safety profile in light of emerging and future data.

#### **Declaration of Competing Interest**

None.

### Source of funding

None.

Correspondence and Communications

3

#### Financial disclosures

None of the authors has a financial interest in any of the products, devices, or drugs mentioned in this manuscript.

#### References

- Tiernan J, Cook A, Geh I, et al. Use of a modified Delphi approach to develop research priorities for the association of coloproctology of Great Britain and Ireland. Colorectal Dis 2014;16(12):965-70.
- Henderson J, Reid A, Jain A. Use of a modified Bapras Delphi process for research priority setting in plastic surgery in the UK. JPRAS 2018;71(12):1679-81.
- Wall S, Del Vecchio D. Commentary on: report on mortality from gluteal fat grafting: recommendations from the ASERF task force. ASJ 2017;37(7):807-10.
- Cárdenas-Camarena L, Bayter JE, Aguirre-Serrano H, Cuenca-Pardo J. Deaths caused by gluteal lipoinjection: what are we doing wrong? PRS 2015;136(1):58-66.

 Del Vecchio D, Wall S Jr. Expansion vibration lipofilling: a new technique in large-volume fat transplantation. PRS 2018;141(5):639e-649e.

> H. Sadideen Cadogan Clinic, Sloane Street, London, UK Department of Surgery and Cancer, Imperial College London, UK

E-mail address: hazim.sadideen@doctors.org.uk

M. Akhavani, A. Mosahebi Department of Plastic and Reconstructive Surgery, Royal Free Hospital, Pond Street, London, UK

> P.A. Harris The London Clinic, Devonshire Place, London, UK

© 2019 British Association of Plastic, Reconstructive and Aesthetic Surgeons. Published by Elsevier Ltd. All rights reserved.

https://doi.org/10.1016/j.bjps.2019.10.008