



Encuesta comparativa hispano-brasileña de balón intragástrico. ¿Trabajamos de la misma manera? Aspectos del manejo técnico endoscópico con más de 60.000 balones.

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Introducción

Recientemente, se han publicado los dos mayores consensos de balón intragástrico (BIG): el brasileño (BIBC, SOARD'18) y el español (SIBC, REED'23) con 41.863 y 20.680 balones, respectivamente.



Objetivo

Comparar los dos consensos para establecer las similitudes y las diferencias en el manejo técnico endoscópico del BIG entre la escuela brasileña y la española.

Material y Métodos

Encuesta comparativa entre los consensos BIBC y SIBC, en relación con los parámetros técnicos endoscópicos: implante, reajuste, explante y complicaciones del BIG.

Se define consenso cuando existe $\geq 70\%$ de acuerdo.

Puede ser:

- Total (CT): ambos consensuan.

- Parcial (CP): sólo 1 consensua y/o afines.

- Desacuerdo (D): ninguno consensua y/o antagónicos.

En este último caso, se establece una segunda ronda de preguntas entre 25 especialistas seleccionados de ambos consensos para dilucidar el manejo.

✓: Consenso ($\geq 70\%$ acuerdo); ✗: No consenso ($< 70\%$ acuerdo).
CT: Consenso Total; CP: Consenso Parcial; D: Desacuerdo entre consensos.



Resultados

60 endoscopistas (39+21), con 62.543 balones (41.863+20.680), y con 5 y 12 modelos de balones en BIBC y SIBC, respectivamente

68 preguntas: Consenso Total: 27 (39.7%), Parcial: 28 (41.2%) y Desacuerdo: 13 (19.1%).

Tabla 1. Implante (n=14)

	BIBC (%)	SIBC (%)	BIBC / SIBC	Second round Whatsapp n=25
1.1 Fasting of at least 8 hours should be observed	✓	✓	CT	
1.2 It is not necessary to follow a prior liquid diet	90.3%	90.5%	CT	
1.3 Outpatient clinic with advanced life support capabilities	83.9%	90.5%	CT	
1.4 Endoscopy room	✓	✗	CP	Surgical room: SIBC: 42.9% 19/25 Endoscopy room 4/25 Ambulatory Qx 2/25 General Qx
1.5 Adult gastroscopy	✗	✓	CP	
1.6 Left lateral position	42.4%	95.2%	CT	
1.7 Direct oro-esophageal introduction	✓	✓	CT	
1.8 Deep/general sedation without orotracheal intubation	✗	✓	CP	14/25 Sed superficial 1/25 Sed profunda 4/25 Anesthesiologist
1.9 Performed by the anesthesiologist	85.3%	95.2%	CT	
1.10 The minimum filling volume for nonadjustable liquid-filled balloons is 500 mL	87.1%	95.2%	CT	14/26: 500cc 10/26: 600cc 2/26: Otros
1.11 The minimum filling volume for adjustable liquid-filled balloons is 500 mL	✗	✓	CP	16/23: 500cc 5/23: 600cc 2/23: Otros BIBC: >400mL: 38.7%
1.12 Methylene blue should always be used in liquid balloons	✓	✓	CT	
1.13 The substance recommended to fill the balloon is saline solution	90.0%	95.2%	CT	
1.14 Anti-fungal drugs are ill-advised	✗	✓	CP	

CT:9, CP:5, D:0

Tabla 3. Explante (n=14)

	BIBC (%)	SIBC (%)	BIBC/SIBC	Second round Whatsapp n=25
3.1 Liquid diet for at least 2 days before balloon removal is necessary	✓	✓	CT	
3.2 It is necessary fasting hours of, at least:	90.9%	71.4%	D	21/27: 8h 5/27: 12h 1/27: 24h
- 8h	80.7%	80.9%		
- 12h	80.7%	80.9%		
3.3 Intake of carbonated cola drinks (zero/diet) is used as preparation for balloon removal	✗	✗	D	
3.4 Outpatient clinic with advanced life support capabilities	64.5%	100%	CP	
3.5 Surgical room	✗	✓	CP	12/25: Endosc room 10/25: Ambulatory Qx 3/25: General Qx
3.6 Adult gastroscopy	✗	✓	CP	
3.7 Patient position: lateral left	40.6%	90.5%	CP	SIBC: supine 47.6% 18/27: LLD 4/27: SD 5/27: Indif
3.8 The preferred accessory for removal is:	✓	✓	D	Extraction adjust-IGB: axis valve 20/24 Silicone 3/24 d/IGB-position 1/4
- a double hook clamp	75.0%	100%		
- endoscopic hybrid jaw grasper (alligator + rat tooth)	75.0%	100%		
3.9 An esophageal overtube can be used in selected cases for difficult balloon removal	74.1%	85.6% nunca ✗ 14.3%	D	22/26 Never 4/26 Occasional (5-50%)
3.10 Vegetable cooking oil is always or frequently used:	86.7%	94.5%	D	19/27 Never (<5% cases) 1/27 Occasional 2/27 Habitual 5/27 Always (>95%)
Yes				
No				
3.11 General anesthesia with intubation	✗	✓	D	18/26 General anest+OTI 8/26 Prof sed 26/26 anesthes
3.12 Performed by an anesthesiologist	52.6%	95.2%	CP	
3.13 When significant food stasis is found during urgent removal it must be performed with tracheal intubation	62.5%	80.9%	CP	24/25: Gen anest+OTI 1/25: Punct + deflat + scheduled remov
3.14 When significant food stasis is found during elective removal it should be done with tracheal intubation	25.0%	52.4%	D	Rescheduled after a new preparation: 23.8% -Without intubation and lighter sedation: 19% Balloon should be punctured and deflated, and a new removal scheduled: 4.8% 19/25: extraction+OTI 6/25: do not manipulate and scheduled remov

CT:1, CP:6, D:7

Tabla 2. Reajuste (n=4)

	BIBC (%)	SIBC (%)	BIBC/SIBC	Second round Whatsapp n=25
2.1 Readjustment session should be performed based on the patient's clinical progression	✓	✓	CT	
2.2 Additional filling volume at readjustment should be 200 mL to 300 mL	✗	✗	CP	SIBC: 100-200mL: 31.6% 200-300mL: 68.4% BIBC: 200-300mL: 42.9% 100-200mL: 25.0% 300-400mL: 14.3%
2.3 Downward volume at readjustment should be 100 mL to 200mL.	✗	✗	CP	BIBC: Total IGB vol=300mL SIBC: 100-200mL: 61.1% ≤100mL: 38.9%
2.4 Readjustment with 60mL syringe	✗	✗	CP	SIBC: Hydraulic pump 33.3%

CT:1, CP:3, D:0

Tabla 4. Criterios de retirada de BIG por complicaciones (n=26)

	BIBC (%)	SIBC (%)	BIBC/SIBC	Second round Whatsapp n=25
REMOVAL of the IGB is ADVISED IF:				
4.1 Upon patient request whatever reason	100%	80.0%	CT	
4.2 Premature balloon removal is defined when performed up to 1 month after implantation	84.4%	80.9%	CT	
4.3 Presence of a gastric ulcer in the case of nonadjustable balloon	90.0%	71.4%	CT	18/25 Always 7/25 Only when required endoscopy therapy
4.4 Presence of a gastric ulcer in the case of adjustable balloon	✗	✓	CP	
4.5 Recurrent antral balloon impaction	53.9%	80.9%	CP	
4.6 Symptomatic balloon hyperinflation	86.7%	90.5%	CT	
4.7 In spontaneous asymptomatic hyperinflation, the balloon must remain inside the stomach	96.9%	80.9%	CT	
4.8 Recurrent hydro-electrolytic disorder	64.9%	100%	CP	
4.9 In the event of balloon rupture (green urine)...	76.7%	80.9%	CT	
4.10 ...and must be performed within 72hours after diagnosis	87.1%	100%	CT	
4.11 ...and its substitution, when indicated, must be simultaneous with its removal	87.1%	95.2%	CT	
4.12 In the event of pregnancy during treatment	93.6%	71.4%	CT	
4.13 With a diagnosis of moderate pancreatitis	81.3%	90.5%	CT	
4.14 With a diagnosis of severe pancreatitis	90.6%	76.2%	CT	En pancreatitis aguda, retirarla el balón. 16/23 siempre (Balth A) 5/23 Leves (Balthaz B) 1/23 Moderada (Balth C) 1/23 Severa (Balth C-D)
REMOVAL of the IGB is RECOMMENDED IF:				
4.15 GI bleeding:	76.5%	✗	D	HGA (Bálceno), retirarla el balón. 10/22 Siempre 11/22 Mantendría BIG si cese espontáneo 1/22 otro
Controlled by endoscopy therapy		57.9%		
Even with spontaneous stop of bleeding		57.9%		
4.16 Severe erosive esophagitis:	✓	✗	CP	12/22 retirarla solo el balón si los síntomas no se controlan con tto médico 24/24 15 días tras tto
Before proper treatment	87.1%	61.9%		
4.17 Mallory-Weiss syndrome:	✓	✗	D	12/23 Retirarla BIBC si requiere > 7 días de BIPs a dosis altas 5/23 Retirarla BIG si requiere terapia endoscópica Retirarla BIBC
If endoscopically controlled, IGB can be maintained	77.4%	47.6%		
Removed later		47.6%		
4.18 After an antral impaction:	86.7%	52.4%	CP	14/22 la intubación no condiciona la retirada del BIG 6/22 Tras segunda impac 1/22 Tras primera impac 1/22 Tras tercera impac
Decision to the discretion of the physician	(recurrence)			
4.19 Pregnancy:	✓	✗	PC	
Removed within the second trimester	81.3%	66.7%		
The IGB can be MAINTAINED IF:				
4.20 Discrete digestive bleeding, spontaneously controlled	84.4%	42.1%	CP	
4.21 Spontaneous hyperinflation in asymptomatic patient without gastric lesions:	✗	✗	D	24/19 Nothing must be done. 4/24 Removal always 1/24 Removal only if implanted < 1 month
4.22 With the diagnosis of mild pancreatitis	76.7%	66.7%	CP	
4.23 Severe erosive esophagitis	87.1%	85.7% removed	D	
4.24 Fungal colonization:	✗	✗	CP	
Nothing should be done	36.4%	61.9%		
4.25 Thromboembolic event:	✗	✗	CP	16/23 Retirarla BIG si estado clínico del pie 6/23 Siempre retirarla BIG 1/23 Retirarla BIG si requiere ACDs
Remove IGB:	43.8%	57.1%		
4.26 Hypovitaminosis or mild nutrition disorder:	✓	✗	PC	23/24 mantendría BIG siempre 1/24 Mantendría BIG solo si puede corregirse con dieta
The IGB can be maintained to the discretion of the physician	76.9%	61.9%		

CT:12, CP:10, D:4

Conclusiones

- En relación con el manejo del BIG, comparando BIBC/SIBC con más de 60.000 balones (12 distintos modelos y con 60 endoscopistas), atendiendo a parámetros técnicos endoscópicos (implante, reajuste, explante y complicaciones), existe consenso total en 39.7%, parcial en 41.2% y desacuerdo en 19.1%.
- La colaboración entre Grupos favorece un manejo clínico unificado.