

Varicocelelectomia e Alterações Seminais

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Fellow Andrologia 2024

Varicocelelectomia e Oligospermia

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ORIGINAL ARTICLE

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Effect of microsurgical varicocelelectomy on fertility outcome and treatment plans of patients with severe oligozoospermia: An original report and meta-analysis

< 5mi/ml

Ahmad Majzoub^{1,2,3}  | Haitham ElBardisi^{1,2} | Simryn Covarrubias⁴ | Nicole Mak⁵ |
Ashok Agarwal³  | Ralf Henkel^{3,6,7}  | Sami ElSaid^{1,2} | Ahmad H. Al-Malki^{1,8}  |
Mohamed Arafa^{1,2,9} 

Study	Study design	Sample size	Surgical procedure	Laterality	Grades	Newcastle–Ottawa Scale ^a		
						Selection	Comparability	Outcome
Gupta et al. (2017)	Retrospective	35	MSV	Unilateral (85.7%) Bilateral (14.3%)	I (27.8%), II (30.8%), III (41.4%)	***	–	***
Dubin et al. (2017)	Prospective	17	MSV	Unilateral (64.7%) Bilateral (35.3%)	I (52.9%), II (29.4%), III (17.7%)	***	–	***
Enatsu et al. (2014)	Retrospective	102	MSV	Unilateral (80.4%) Bilateral (19.6%)	I (7.8%), II (38.2%), III (53.9%)	***	–	***
Almekaty et al. (2019)	Prospective	302	MSV	Unilateral (70%) Bilateral (30%)	II (30%), III (70%)	***	–	***
Masterson et al. (2019)	Retrospective	33	MSV	–	–	***	–	***
Leung et al. (2013)	Case series	20	MSV	Unilateral (100%)	II (40%), III (60%)	***	–	***
Ishikawa et al., (2008)	Case series	6	Low ligation	–	–	***	–	***
Current study	Retrospective	85	MSV	Unilateral (69.4%) Bilateral (30.6%)	I (19%), II (36%), III (45%)	***	–	***

Abbreviation: MSV, microsurgical subinguinal varicocelectomy.

^aSelection of study groups (0–3 stars), comparability of the groups (0–2 stars) and ascertainment of exposure or outcome (0–3 stars).

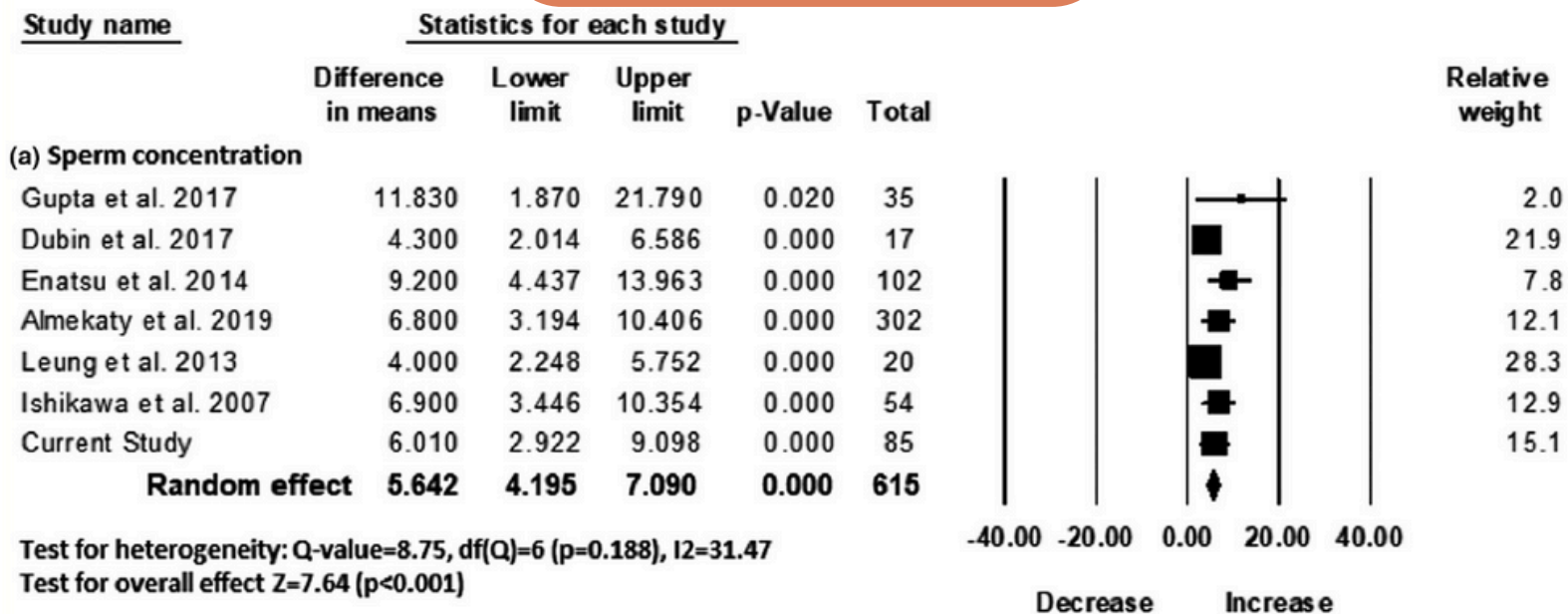
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Concentração



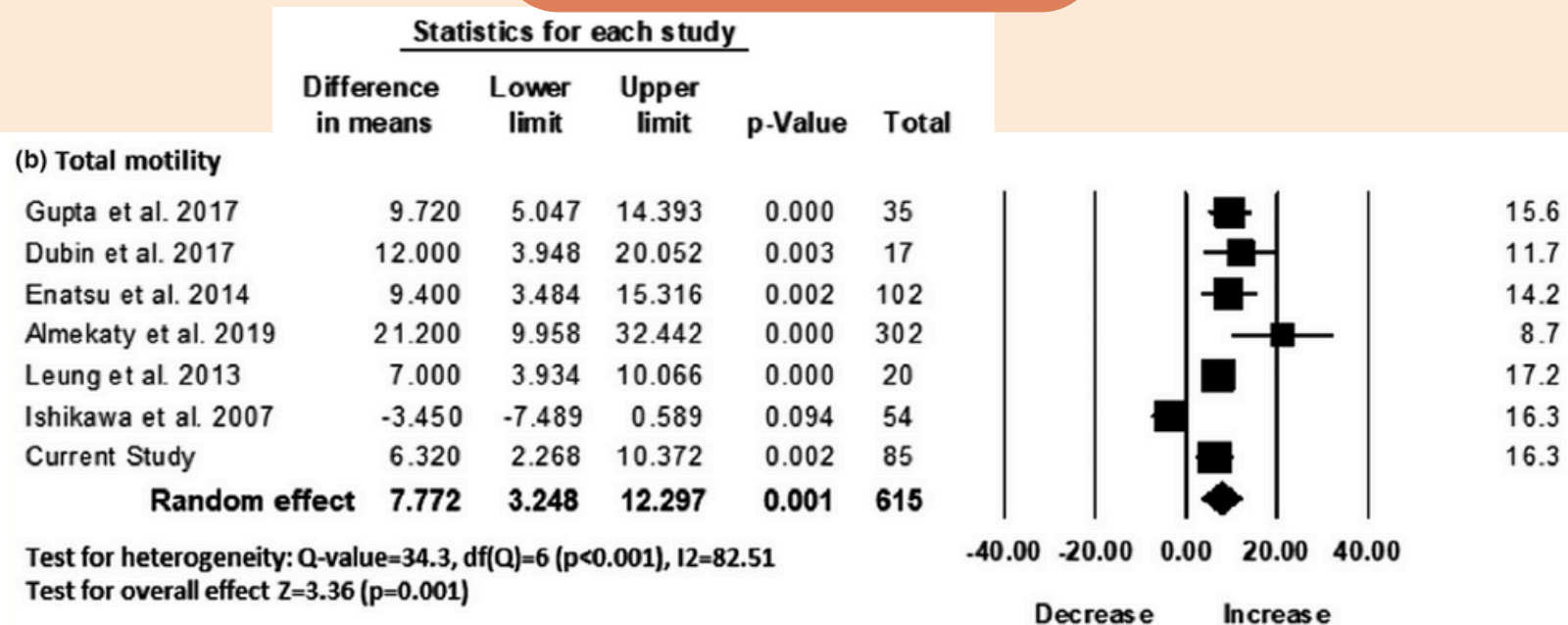
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Motilidade



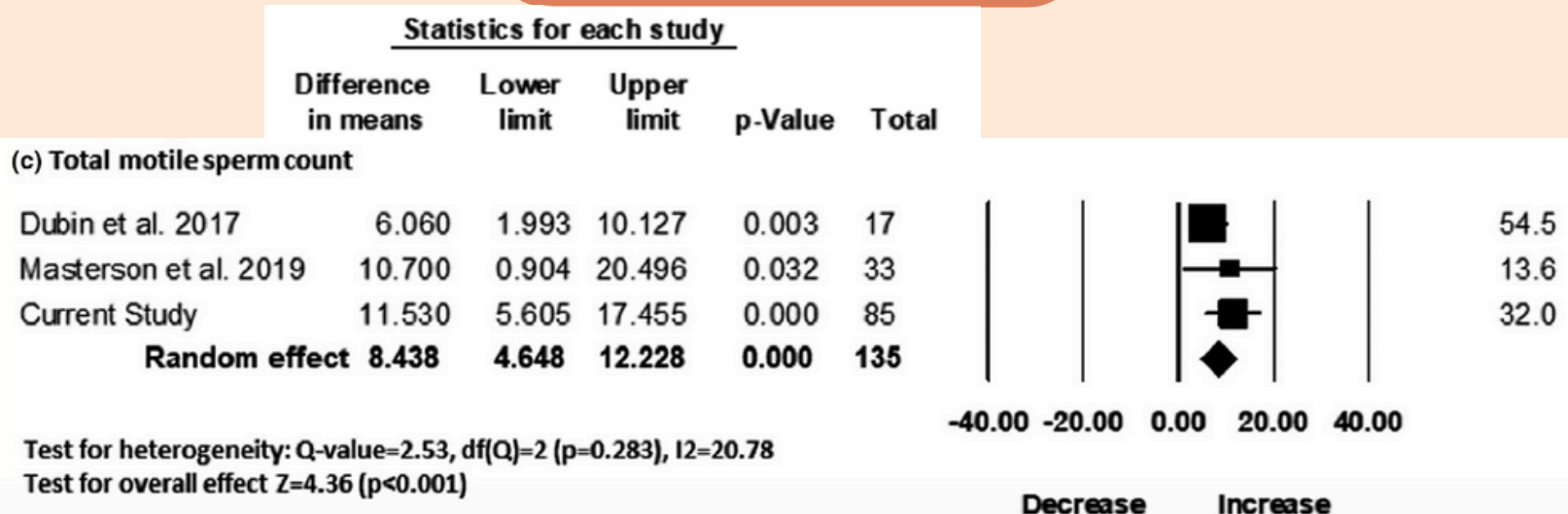
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TMSC



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Discussão

TMSC > 5mi

IIU

TMSC > 9mi

Gestação Natural

Melhora na TMSC

Possibilidades novos cenários*

Varicocelectomia e Azoospermia

Undergoing varicocele repair before assisted reproduction improves pregnancy rate and live birth rate in azoospermic and oligospermic men with a varicocele: a systematic review and meta-analysis

E. Will Kirby, M.D.,^a Laura Elizabeth Wiener, M.S.,^b Saneal Rajanahally, M.D.,^c Karen Crowell, M.L.I.S.,^d and Robert M. Coward, M.D.^{a,e}

^a Department of Urology and ^b Department of Biostatistics, UNC Gillings School of Global Public Health, Chapel Hill, North Carolina; ^d UNC Health Sciences Library, University of North Carolina (UNC) School of Medicine, Chapel Hill, North Carolina;

^e UNC Fertility, Raleigh, North Carolina; and ^c Department of Urology, University of Washington, Seattle, Washington

Undergoing varicocele repair before assisted reproduction improves pregnancy rate and live birth rate in azoospermic and oligospermic men with a varicocele: a systematic review and meta-analysis

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Varicocele Clínica



Alteração seminal

Varicocelectomia

X

Varicocele persistente



Tx Gravidez

Tx Nascidos Vivos

Undergoing varicocele repair before assisted reproduction improves pregnancy rate and live birth rate in azoospermic and oligospermic men with a varicocele: a systematic review and meta-analysis

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7 estudos

Author/year	Varicocele grade	Semen analysis characteristics	ART method	Cohort size
Gokce/2013	All grades	Oligospermia asthenospermia, teratospermia (any combination of)	IVF/ICSI	306
Esteves/2010	All grades	Oligospermia asthenospermia, teratospermia (any combination of)	IVF/ICSI	242
Pasqualotto/2012	Only grade III	"Poor semen parameters"	IVF/ICSI	248
Ashkenazi/1989	All grades	"Subfertile Semen"	IVF	22
Haydardedeoglu/2010	Only grade III	Nonobstructive azoospermia	IVF/ICSI with TESE	269
Inci/2009	All grades	Nonobstructive azoospermia	IVF/ICSI with TESE	96
Daitch/2001	All grades	Oligospermia asthenospermia, teratospermia (any combination of)	IUI	58

Note: ART = assisted reproductive technology; ICSI = intracytoplasmic sperm injection; TESE = testicular sperm extraction.

Kirby. ART outcomes after varicocele repair. Fertil Steril 2016.

Odds ratios comparing varicocele repair with persistent varicocele.

Tx Gravidez

Patient group	Odds ratio	95% confidence interval	P value
Oligospermia			
Ashkenazi	Infinity	(3.526, Infinity)	
Esteves	1.829	(1.026, 3.275)	
Gokce	1.872	(1.155, 3.035)	
Pasqualotto	0.96	(0.522, 1.792)	
Oligospermic group	1.695	(0.951, 3.020)	.0733
Azoospermia			
Haydardedeoglu	2.621	(0.947, 7.743)	
Inci	1.604	(0.244, 18.108)	
Azoospermic group	2.336	(1.022, 5.342)	.0444
Combined oligospermia and azoospermia	1.760	(1.139, 2.720)	.0109

Tx Nascidos Vivos

Oligospermia			
Esteves	1.873	(1.038, 3.365)	
Gokce	2.227	(1.348, 3.697)	
Pasqualotto	0.915	(0.475, 1.802)	
Oligospermic group	1.699	(1.020, 2.831)	.0417
Azoospermia			
Haydardedeoglu	2.559	(0.971, 6.903)	
Inci	1.212	(0.179, 13.993)	
Azoospermic group	2.208	(0.994, 4.904)	.0518
Combined oligospermia and azoospermia	1.761	(1.223, 2.537)	.0024

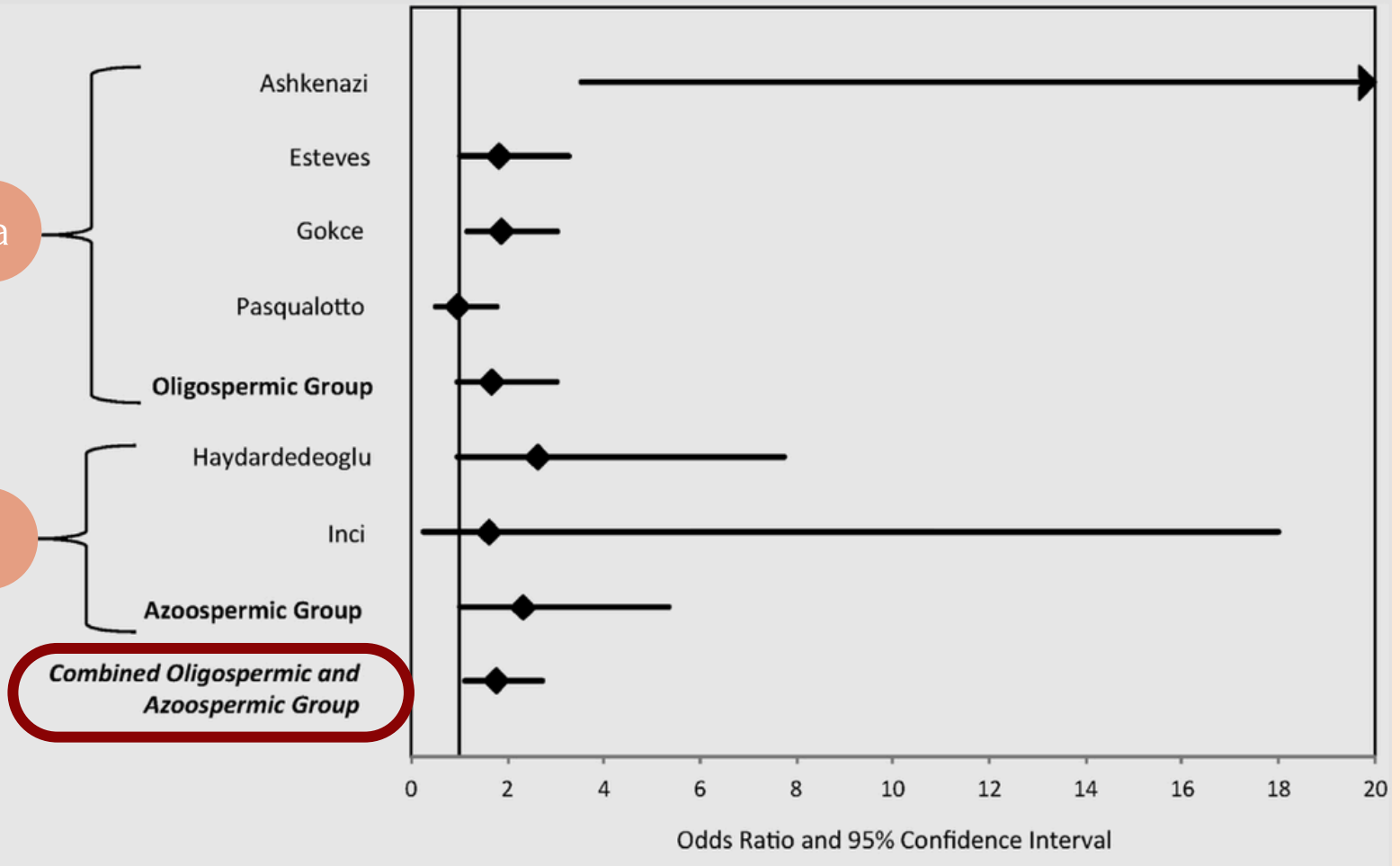
Kirby. ART outcomes after varicocele repair. Fertil Steril 2016.

Tx Gravidez

A

Oligospermia

Azoospermia

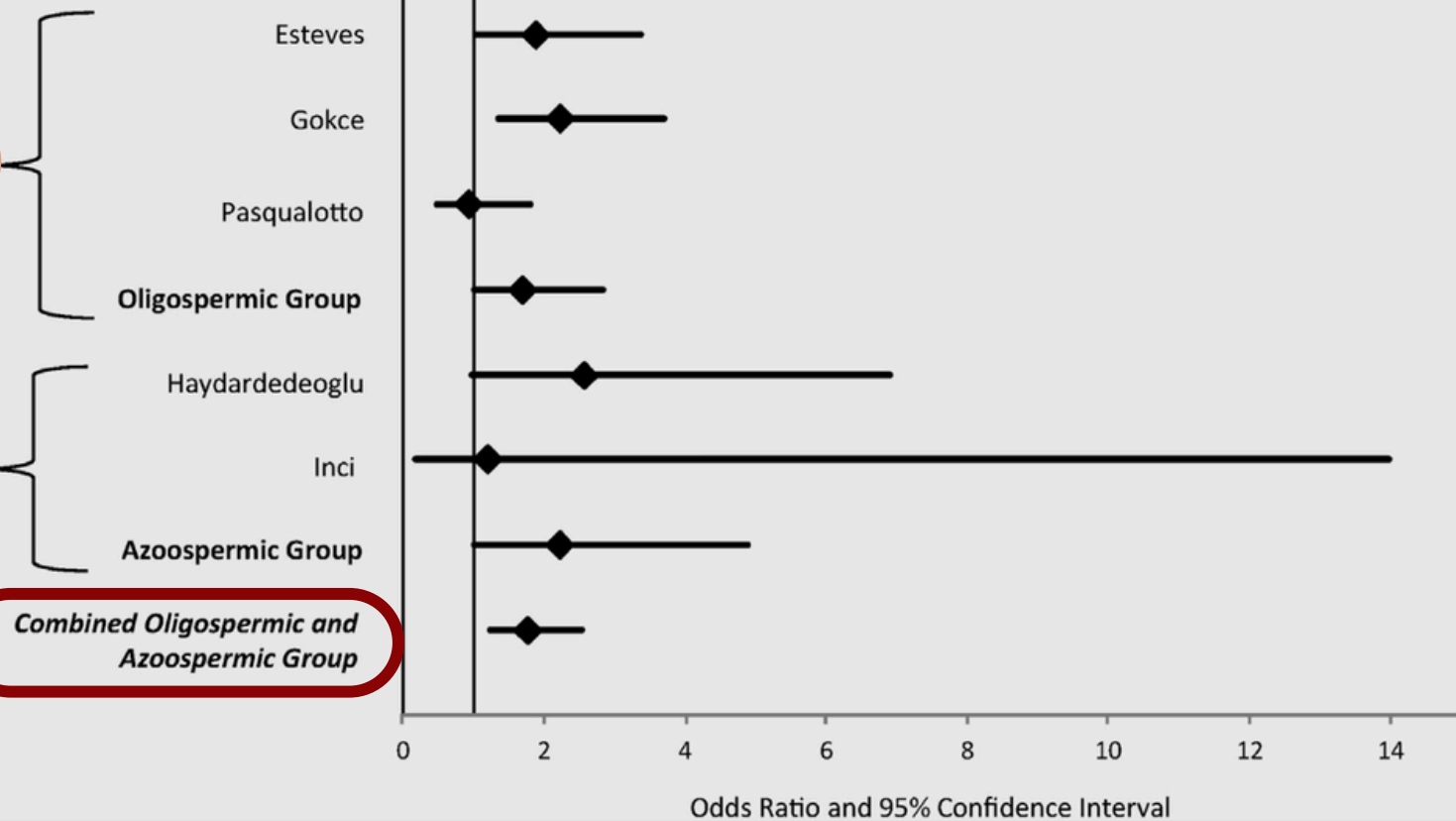


Tx Nascidos Vivos

B

Oligospermia

Azoospermia



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Discussão



Fragmentação
de DNA

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