

Recommendation	Quality of Evidence ¹	Strength of recommendation ²
1. Diagnosis		
Varicocele is a clinical diagnosis.	very low	moderate
Clinical examination is performed best with the patient both upright and supine.	very low	strong
Abdominal ultrasound examination should be performed.	very low	strong
Ultrasound is superior to Prader's orchidometer to detect testicular volume differences.	moderate	n/a
Hormonal status should not be performed routinely. (Ref:24)	very low	strong
Varicocele in adolescents may lead to testicular hypotrophy. (Ref:23)	high	n/a
Testicular hypotrophy may have a negative influence on sperm counts. (Ref:27)	moderate	n/a
2. Treatment		
Boys with varicocele should have follow-up throughout puberty.	very low	strong
Adolescents with Tanner stage 2 and higher presenting with varicocele and testicular growth arrest (6-12 months) should be treated. (Ref:23)	high	strong
Adolescents with Tanner stage 2 and higher presenting with bilateral visible varicoceles should be treated.	moderate	strong
Symptomatic varicocele should be treated at any age.	very low	strong
Subclinical varicocele diagnosed with paraclinical examinations only do not require treatment.	moderate	strong
The treating physician's experience and expertise should determine the best available option for varicocele treatment.		n/a
Treatment may lead to testicular atrophy.	high	n/a
Treatment may lead to hydrocele formation.	high	n/a
After treatment varicocele may relapse.	high	n/a
In case of previous groin surgery the a. testicularis should be preserved during vena spermatica ligation. (Ref:29)	very low	strong
Sparing of the lymphatic vessels during surgery can prevent hydrocele formation. (Ref:30)	high	n/a

3.Follow-up		
Postoperative follow-up should take place 6-12 month after any treatment.	very low	strong
Adolescents with Tanner stage 2 and higher presenting with varicocele and symmetrical testicular size should be followed-up annually. (Ref:22)	moderate	strong
Observations should be continued into adulthood.	very low	strong
After treatment a catch-up growth of the involved testis can be observed even when operated at Tanner 5 Stage. (Ref:31)	high	n/a
Treatment may improve sperm count. (Ref:32/33)	high	n/a
Treatment might not promote paternity. (Ref:32/33)	high	n/a

1) high/moderate/low/very low

2) strong/weak/uncertain /not applicable (n/a)-for statements

Methods:

Research in:

- Ovidmedliner, Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, ACP Journal Club between 1966-2017

Articles are graded according level of evidence

- I.RCT or systematic review (Evaluation of the RCT using Jadad-Score⁴⁰)
- II.CCT
- III.prospective cohort study
- IV.retrospective study
- V.case series or expert's opinion,

Research-Strategy

1. Varicocele/
2. varicocele.mp
3. varicocele.tw
4. 1 or 2 or 3
5. limit 4 to Child 0-18
6. limit 5 to (english or french or german or spanish or italien)

Guidelines

7. guidelin\$.tw
8. guideline.pt
9. exp guideline/
10. practice guidelines\$.tw
11. ex practice guideline/
12. position statements\$.tw
13. practice parameter\$.tw
14. practice standard\$.tw
15. consensus development conference.tw
16. consensus statement.tw
17. state-of-the-art conference.tw
18. recommendations\$.tw
19. association\$.tw
20. societ\$.tw
21. societies/
22. societies medical/
23. 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18
24. 19 or 20 or 21 or 22

25. 18 and 24
26. 23 or 25
27. 6 and 26

Diagnosis

28. diagnosis.tw
29. imaging.mp
30. sonography.mp
31. ultrasonography.mp
32. scintigraphy.mp
33. dopplersonography.mp
34. thermography.mp
35. tomography.mp
36. 6 and 28
37. 6 and 29
38. 6 and 30
39. 6 and 31
40. 6 and 32
41. 6 and 33
42. 6 and 34
43. 6 and 35
44. 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43

Treatment

- 45. Varcicocele/th
- 46. Varicocele/su
- 47. varicocelectomy.mp
- 48. treatment. mp
- 49. 6 and 48
- 50. operation.mp
- 51. 6 and 50
- 52. laparoscopy.mp
- 53. 6 and 52
- 54. microsurgical.mp
- 55. 6 and 54
- 56. spermatic\$.tw
- 57. 6 and 56
- 58. embolisation.tw
- 59. 6 and 58
- 60. sclerotherapy.tw
- 61. 6 and 60
- 62. 45 or 46 or 47
- 63. limit 62 to human
- 64. limit 64 to (english or french or german or italien or spanish)
- 65. 49 or 51 or 53 or 55 or 57 or 59 or 61 or 64
- 66. limit 65 to review articles
- 67. limit 65 to guideline
- 68. limit 65 to meta-analysis

- 69. limit 65 to multi-center study
- 70. limit 65 to randomized controlled trial
- 71. limit 65 to evidence based medicine reviews

Prognosis

- 72. prognosis.mp
- 73. 6 and 72
- 74. complication\$.mp
- 75. 6 and 74

Publication Design

- 76. controlled clinical trial.tw
- 77. placebo.tw
- 78. random\$.tw
- 79. meta-anal\$.tw
- 80. double-blind method/
- 81. double blind.tw
- 82. 6 and 76
- 83. 6 and 77
- 84. 6 and 78
- 85. 6 and 79
- 86. 6 and 80
- 87. 6 and 81

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