Position Paper: Management of Men Complaining of a Small Penis Despite an Actually Normal Size

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ABSTRACT

Introduction. With the worldwide increase in penile augmentation procedures and claims of devices designed to elongate the penis, it becomes crucial to study the scientific basis of such procedures or devices, as well as the management of a complaint of a small penis in men with a normal penile size.

Aim. The aim of this work is to study the scientific basis of opting to penile augmentation procedures and to develop guidelines based on the best available evidence for the management of men complaining of a small penis despite an actually normal size.

Methods. We reviewed the literature and evaluated the evidence about what the normal penile size is, what patients complaining of a small penis usually suffer from, benefits vs. complications of surgery, penile stretching or traction devices, and outcome with patient education and counseling. Repeated presentation and detailed discussions within the Standard Committee of the International Society for Sexual Medicine were performed.

Main Outcome Measure. Recommendations are based on the evaluation of evidence-based medical literature, widespread standards committee discussion, public presentation, and debate.

Results. We propose a practical approach for evaluating and counseling patients complaining of a small-sized penis.


Key Words. Small Penis; Dysmorphophobia; Body Dysmorphic Disorder; Penile Augmentation

Introduction

Procedures and devices claiming to enhance penile size are being widely advertised. Internet advertisements target a group of men with excessive concern about their penile size which in reality is usually normal. In a recent review, Vardi and Lowenstein noted that surgery to augment penile length or girth has become increasingly common, especially in private rather than research or university settings. Lack of standardization of this controversial procedure has led to a wide variety of poorly documented surgical techniques, with unconvincing results [1].

In a recent study, using a structured management and counseling protocol, only 3.6% (9/250) of patients chose to seek surgical intervention. In physically normal men, only 2% (5/246) chose surgery [2].

Objectives

The aim of this work is to study the scientific basis for opting to penile augmentation procedures and to develop guidelines based on the best available evidence for the management of men complaining of a small penis despite an actually normal size. This position paper addresses men with a normal-sized penis. Cases of a true micropenis must not be overlooked as they are managed differently and frequently quite successfully when associated with hormonal deficiencies.
Methods
A Medline literature search was performed to find and evaluate the evidence about what the normal penile size is, what patients complaining of a small penis usually suffer from, benefits vs. complications of surgery, penile traction devices, and outcome with patient education and counseling. Repeated presentations and detailed discussions within the Standard Committee of the International Society for Sexual Medicine were performed. Recommendations were made by the committee based on the data collected and expert discussions.

Normal Penile Size
The technique for the measurement of the penile length has been described by Wessells et al. [3]. The penis is measured from the pubic bone to the tip of the glans, to the nearest 0.5 cm, in dorsal decubitus, before any manipulation of the penis (flaccid length), then with maximum manual stretching on glans (stretched length). The penile circumference is measured at midshaft in both the flaccid and erect states using a tape measure.

Standardized Measurements by Physicians (Table 1)
Wessells et al. provided detailed objective penile measurements in the flaccid, stretched, and erect states [3]. Erection was induced by prostaglandin E1 (PGE1) or phentolamine/papaverine. Mean flaccid length was 8.85 cm; stretched length was 12.43 cm and erect length was 12.89 cm. The penile girth at midshaft was 9.71 cm flaccid and 12.30 cm (standard deviation [SD] 1.31) erect (Table 1). Ponchetti et al. reported similar figures in the largest study where measurements were recorded by physicians [4]. The investigators objectively studied 3,300 Italian men and reported a mean flaccid penile length of 9.0 cm, a flaccid circumference of 10.0 cm (at the middle of the penile shaft), and a mean stretched length of 12.5 cm. Several other studies provided figures consistent with these findings (Table 1) [5–11].

Patient Self-Measurements (Table 2)
In a study of 4,187 heterosexual and 935 homosexual men, Bogaert and Hershberger reported an erect length of 16.40 cm and girth of 12.57 cm for homosexuals, and an erect length of 15.60 cm and girth of 12.19 cm for heterosexuals [12]. Harding and Golombok studied a sample of 312 gay men and reported a mean length of 15.3 cm and a mean girth of 12.5 cm [13]. Schneider et al. studied 111 young men 18–19 years old. The mean reported length of the flaccid penis was 8.60 cm and that of the erect penis was 14.48 cm [14].

What Is the Average Penile Size? (Table 3)
Research assessing the normal penile size includes studies that follow a standardized measurement technique by physicians and studies that rely on patient self-reporting. Most studies objectively following a standardized measuring technique performed by a physician report that the average length of the stretched penis in the normal adult

Table 1 Results of standardized penile measurements (centimeter)

<table>
<thead>
<tr>
<th>Study</th>
<th>Number</th>
<th>Flaccid length</th>
<th>Flaccid girth</th>
<th>Stretched length</th>
<th>Erect length</th>
<th>Erect girth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamel et al. (2009), Middle East</td>
<td>1,047</td>
<td>8.9 ± 0.9</td>
<td></td>
<td>12.9 ± 1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mehraban et al. (2007), Middle East</td>
<td>1,500</td>
<td></td>
<td>8.66 ± 1.01</td>
<td>11.58 ± 1.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promodu et al. (2007), Asia</td>
<td>301</td>
<td>8.21 ± 1.44</td>
<td></td>
<td>10.88 ± 1.42</td>
<td>12.93 ± 1.63</td>
<td>11.49 ± 1.04</td>
</tr>
<tr>
<td>Awwad et al. (2005), Middle East</td>
<td>271</td>
<td>9.3 ± 1.9</td>
<td></td>
<td>13.5 ± 2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spyropoulos et al. (2002), Europe</td>
<td>52</td>
<td>8.68 ± 1.12</td>
<td></td>
<td>12.18 ± 1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ponchetti et al. (2001), Europe</td>
<td>3,300</td>
<td>9 ± 2</td>
<td></td>
<td>12.5 ± 2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaikan (2000), Asia</td>
<td>208</td>
<td>8.5 (6.6–10.5)</td>
<td></td>
<td>12.3 (8.5–16.5)</td>
<td>11.3 (9–13.8)</td>
<td></td>
</tr>
<tr>
<td>Wessells et al. (1996), USA</td>
<td>80</td>
<td>8.8 ± 2.38</td>
<td>9.71 ± 1.17</td>
<td>12.45 ± 2.71</td>
<td>12.89 ± 1.31</td>
<td>12.3 ± 1.31</td>
</tr>
<tr>
<td>Bondil et al. (1992), Europe</td>
<td>905</td>
<td>10.74 ± 1.84</td>
<td></td>
<td>16.74 ± 2.29*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*After three consecutive stretches

Table 2 Studies reporting patients’ self-measurements

<table>
<thead>
<tr>
<th>Study</th>
<th>Flaccid length</th>
<th>Flaccid girth</th>
<th>Erect length</th>
<th>Erect girth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bogaert and Hershberger (1999)*</td>
<td>16.4</td>
<td>12.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bogaert and Hershberger (1999)†</td>
<td>15.6</td>
<td>12.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schneider et al. (2001)‡</td>
<td>8.6</td>
<td>14.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harding and Golombok (2002)§</td>
<td>15.3</td>
<td>12.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Homosexuals
†Heterosexuals
§Unspecified sexual orientation
male is 12.1–12.4 cm (normal range 7–18 cm), with average circumference of 9.7–10 cm [3–10]. It is not clear why there is a significant difference between these studies and an older report by Bondil et al. [11] (Table 1). It is also interesting to note the difference between studies relying on physician measurements and studies relying on patients’ self-reporting of penile size (Tables 1 and 2). Bondil et al.’s results are quite different from other studies conducted among Caucasian populations. The reason for such a difference is not clear but might be related to the measurement technique, where he stretches the penis three times consecutively [11]. Such differences need to be evaluated through further research. Table 3 summarizes the average penile measurements reported in most studies (flaccid length 8.9 cm; stretched length 12.3 cm; erect length 12.7 cm; flaccid circumference 9.4 cm; and erect circumference 11.5 cm).

A true micropenis is a normally formed but small penis whose length is 2.5 SDs below the normal median for age (7.5 cm for adult men). Researchers used the 2.5 figure as it is the SD where 99% of normally distributed data fall (Aaronson) [15]. Wessells et al. suggested that a true micropenis is less than 4 cm in flaccid state and 7.5 cm in the erect state as this erectile length impairs vaginal penetration [3]. Functionally, only the erect size contributes to sexual performance.

**Men’s and Women’s Views on Penile Size**

Lever et al. conducted an internet survey of 52,031 heterosexual men and women to determine if men who believed that they had a large penis had a more favorable body image compared with men who believed that their penises were small. As predicted, men who rated their penis as large had significantly more positive views about their body and the attractiveness of their face than did other men. A much higher percentage of women were satisfied with their partner’s penis size than the percentage of men who were satisfied with their own penis size (84% vs. 55%). The authors acknowledged that the main limitation of their study is that it was based entirely on patients’ impressions of penile size and other physical characteristics [16].

### Differential Diagnosis

**Rectifying the Diagnosis: What Is the Real Problem Behind Most Complaints About a Small Penis? (Table 4)**

Most studies suggest that most men complaining of a small-sized penis have in fact normal-sized genitals. Ninety-eight percent (246/250) of Ghanem et al.’s patients [2], all of Shamloul’s (92 patients) [17], all of Spyropoulos et al.’s (28 patients) [18], and all of Mondaini et al.’s (44 patients) patients had a normal penile size [19].

Some men are simply misinformed but others suffer from what is known as penile dysmorphophobia (Shamloul; Spyropoulos et al.). Penile dysmorphophobia (Table 5) is a part of the body dysmorphic disorder (BDD) which is defined by the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (Text Revision) (DSM-IV-TR) as a condition marked by excessive preoc-

<table>
<thead>
<tr>
<th>Study</th>
<th>Normal findings</th>
<th>Abnormal findings</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghanem et al.</td>
<td>246</td>
<td>4</td>
<td>250</td>
</tr>
<tr>
<td>Shamloul</td>
<td>92</td>
<td>0</td>
<td>92</td>
</tr>
<tr>
<td>Spyropoulos et al.</td>
<td>28</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Mondaini et al.</td>
<td>44</td>
<td>0</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>420</strong></td>
<td><strong>4</strong> (0.96%)</td>
<td><strong>414</strong></td>
</tr>
</tbody>
</table>

**Table 5  Body dysmorphic disorder: of the penis**

- The body dysmorphic disorder is part of the somatoform disorder, a physical complaint that cannot be explained by a physical disease or a known path physiological mechanism.
- In DSM-IV three criteria are mentioned [10]:
  1. Preoccupation with an imagined defect in appearance
  2. Preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
  3. Preoccupation is not better accounted for another mental disorder
- Comorbidities include
  1. Depression
  2. OCD
  3. Somatic delusions
  4. Social phobia
  5. Panic disorder
  6. Drug addiction
  7. Sexual identity disorder
- There is no evidence that surgery would resolve the BDD

BDD = body dysmorphic disorder; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition; OCD = Obsessive–compulsive disorder
ocupation with an imaginary or minor defect in a facial feature or localized part of the body, which differentiates it from anorexia nervosa and bulimia nervosa, where the patients are preoccupied with their overall weight and body shape [20]. The diagnostic criteria specify that the condition must be sufficiently severe to cause a decline in the patient’s social, occupational, or educational functioning. The most common cause of this decline is the time lost in obsessing about the “imagined defect.” It is different from cases of Koro or genital retraction syndrome, where the patient is overcome with the belief that his external genitals are retracting into the body, shrinking, or may be imminently removed or disappear [21].

Shamloul studied 92 patients complaining of a small penis [17]. All men had normal penile sizes. Sixty-six (71.7%) out of the 92 patients complained of a short penis in the flaccid state only, while 26 (28.3%) patients complained of a short penis in both the flaccid and the erect state. None of the patients had erectile dysfunction. On physical examination, none of the patients had a short penis. Almost all patients overestimated the normal penile size. All 28 men presenting with a complaint of a small penis in Spyropoulos et al.’s study [18] and all 44 of Mondaini et al.’s [19] study had normal penile sizes (Table 4). Interestingly, the main concern in Mondaini et al.’s work was the flaccid size (66%), followed by both the erect and flaccid sizes (33%), while only one patient was concerned with the erect size only.

Ghanem et al. studied 250 men with a complaint of a small penis. The majority (246/250 [98%]) had normal penile measurements. Two (0.8%) patients had a buried penis and another two (0.8%) had a true micropenis [2].

A frequent complaint in some cultures is made by parents of overweight boys where a normal prepubertal penis is to some extent covered by the infrapubic pad of fat. It is surprising that little research addresses the management of this complaint [22]. The main concern is to avoid the development of the BDD, in these boys, as a result of the lack of information by the parents. Comments made by parents, in the presence of the child like “his younger brother has a much larger penis” or attempts to pass the BDD from father to son “his penis is small like mine, its hereditary,” are obviously traumatic. A physical examination followed by educating the parents about the normal size of the prepubertal penis is almost always sufficient to alleviate the concerns. An empathetic attitude is very important. There is no scientific evidence that inducing precocial puberty in these boys, in response to the parents’ complaints, would be of value. In theory, that might end up with a boy who is convinced that he does have a small penis requiring treatment [22].

However, some men do suffer from physical abnormalities that are sometimes amenable to surgical correction as in concealed or buried penis. A concealed penis is a normally developed penis, i.e., partially covered by the suprapubic fat (Elder) [23]. A penis may also be buried by an overzealous circumcision removing excessive skin in addition to the prepuce.

Surgery for Penile Augmentation

Surgical Approaches (Table 6)

The aim of surgery is to increase the perceived penile length, the actual girth, or both. Several techniques have been described to increase penile length. The main approach to attempt to increase penile length is through cutting the suspensory ligament with or without V-Y plasty of the lower abdominal skin, possibly with fat, dermis, or synthetic material graft to prevent reattachment of the suspensory ligament [24–33]. Penile disassembly with placing an autologous rib cartilage between the corpora and glans has also been described by Perovic et al. [34,35]. Liposuction or lipectomy has been used for patients with a large infrapubic pad of fat [36,37].

Surgery to enhance the penile girth includes lipoinjection, dermal free or pedicle grafts, and venous grafting for the corpora cavernosa [38–44]. Jin et al. introduced a novel technique for girth enhancement utilizing a poly acid-co-glycolide biodegradable scaffold (Maxpol-T) coated by autologous fibroblasts for penile girth enlargement. Mean erect girth increased from 10.26 ± 1.22 to

<table>
<thead>
<tr>
<th>Table 6 Surgical methods for penile augmentation [23–44]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length augmentation</strong></td>
</tr>
<tr>
<td>Suspensory ligament release with or without inverted V-Y skin incision or full thickness skin grafting</td>
</tr>
<tr>
<td>Prepubic liposuction or surgical lipectomy</td>
</tr>
<tr>
<td>Correction of the cause (ventral chordee or scrotal web)</td>
</tr>
<tr>
<td>Penile disassembly and cartilage transplant</td>
</tr>
<tr>
<td><strong>Girth augmentation</strong></td>
</tr>
<tr>
<td>Lipoinjection</td>
</tr>
<tr>
<td>Dermal graft</td>
</tr>
<tr>
<td>Temporalis fascia transfer</td>
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<tr>
<td>Saphenous vein grafts</td>
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<tr>
<td>Injection of synthetic materials</td>
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13.18 ± 1.31 cm (P < 0.001). Out of 69 patients, 65 (94.2%) reported satisfaction with the procedure. Complications included prolonged subcutaneous edema in three patients (4.3%) and pinpoint erosion at the suture area in three patients (4.3%) [45]. Kwak et al. reported similarly good results using hyaluronic acid fillers (temporary dermal fillers). The authors studied 50 patients and followed 41 for up to 18 months. Mean flaccid girth increased from 7.48 ± 0.35 to 11.41 ± 0.34 (P < 0.0001). The authors reported no complications [46].

**Expected Improvement from Surgery**

Data objectively evaluating length gain from suspensory ligament release—in a standardized fashion—are unavailable. A 1- to 2-cm length gain is considered a success, and patients are informed that there is a possibility of no actual gain (Ghanem et al., Spyropoulos et al., and Li et al.) [2,18,32]. Long-term follow-up is needed to assess the possibility of shortening due to contracture of the infra-pubic scar leading to progressive shortening. Girth enhancement has been more successful as it did provide real increase in girth (3–4 cm), dependent on the take and type of the graft [28,38–43].

Because no standard method of documentation and measurement exists, claims of extraordinary length gains are unfounded. There are no independent reviews of the results of these procedures. The results have been solely reported by the authors. Confusion further arises concerning gain in erect length because erect measurements are unavailable and most patients deny significant erect length gain.

**Possible Complications of Penile Augmentation Surgery**

General risks related to any surgical procedure include infection, bleeding, and possibly death; at least one case was reported with augmentation procedures in North America. Complications related to penile lengthening procedures include “scrotalization” where the penis is unsightly being covered by scrotal corrugated skin rather than by its natural smooth skin, “dog ears” may be seen at the ends of the operation scars, and skin sloughing. Girth augmentation procedures may be complicated by nodule formation due to uneven fat resorption or a deformed appearance related to irregular fatty lumps over the penis [26,47].

Wessells et al. [47] reported the complications of penile augmentation techniques in 12 men referred to them due to unsatisfactory results with penile augmentation procedures done by other surgeons. The main reasons for dissatisfaction were poor cosmetic appearance related to irregular residual fat nodules (seven patients), skin deformity and scarring (four patients), and scrotalization (four patients) of the penile skin. Wound complications occurred in six patients and sexual dysfunction was reported by four patients. Only one patient reported a subjective increase in penile length. Reoperation was necessary in six patients. The authors concluded that this series did not give an estimate of the real complication rate and that an accurate assessment of the complication rate may never be available. However, the morbidity of elective penile lengthening and girth enhancement is noteworthy. They advised that these procedures should be regarded as experimental.

Alter [26] performed 30 penile reconstructive procedures to correct deformities resulting from penile augmentation procedures performed by other physicians. Complications related to the lengthening procedure included hypertrophy or unsightly scars, a proximal penile hump from a thick hair-bearing V-Y flap, and a low hanging penis. Complications related to girth enhancement included loss of injected fat, penile lumps, and nodules leading to shaft deformities.

Penile shortening after releasing the ligaments is another potential distressing problem. It might result from scarring and retraction in the area of the suspensory ligament leading to penile shortening. Placing fillers between the corporal bodies and the pubic symphysis has been suggested to prevent reattachment of the suspensory ligament. The use of stretching devices has also been suggested to minimize penile retraction and entrapment in the infrapubic scar (Alter; Ralph et al.) [26,48].

New girth enhancement procedures using temporary hyaluronic acid fillers or biodegradable scaffold Maxpol-T cografted autologous fibroblasts have not been reported to be associated with serious complications [45,46]. Safety of permanent dermal fillers has not been established in penile augmentation.

Psychological complications might also result from unsatisfactory surgical results. Any surgical or even medical (placebo) intervention on a patient with penile dysmorphophobia may result in a patient more convinced that he has a problem, as the physician acknowledged it by intervention rather than education and counseling.

**Patient Satisfaction**

Most men who had penile augmentation surgery for penile lengthening were not satisfied with the
results according to a recent study by Li et al. [32] who reported that only 27% of men with dysmorphophobia were satisfied with the results, and the overall satisfaction rate was 35%. The authors concluded that patients with penile dysmorphic disorder should be discouraged from surgery and be referred for psychiatric counseling. Surgical intervention should be reserved as a last resort and only when the patient understands the limitations of the expected outcome. In the study by Ghanem et al., only three of the nine well-informed patients were satisfied with the outcome [2].

Spyropoulos et al. evaluated 28 men complaining of a small penis [18]. Eleven elected to undergo penile augmentation after a structured preoperative counseling and education session. Postoperative evaluation using a questionnaire suggested increased sexual self-esteem scores following augmentation surgery. However, the main limitations of the study as noted by the editorial comments included the use of a nonvalidated questionnaire and employing a sample with a much shorter penis than the mean. The mean penile length of the stretched penis in these men was 9.12 cm. The authors have previously reported a mean penile length of 12.1 cm in their patient population (Spyropoulos et al.) [5].

Patient satisfaction with girth augmentation procedures appears to be more significant. Jin et al. reported that 94% of his patients were satisfied, very satisfied, or extremely satisfied with the results [45]. Kwak et al. reported patient satisfaction as $3.34 \pm 0.53$ (scale 0–4) at 18 months [46].

It should be noted that the above studies included series of consecutive patients and satisfaction was not independently assessed.

**Guidelines for Surgery**

Currently, there is little consensus over the indications for penile augmentation surgery. The guidelines suggested by Wessells et al. [3] advise that only men with an erect length of less than 7.5 cm should be considered candidates for penile lengthening. This threshold for intervention is based on the authors’ findings and needs further evaluation through other studies. The stretched or erect penile size is functionally more significant than the flaccid length. Wessells et al. reported that the length of the stretched penis is close to the length of the erect penis.

The Asia Pacific Society for Sexual Medicine (APSSSM) published its guidelines that suggest that penile augmentation procedures should be limited to patients whose erect penile length falls below two SDs from the mean. Ideally, they should be evaluated by a psychiatrist for dysmorphophobia before the surgery (Tan and Pin) [49].

The Sexual Medicine Society of North America released a position statement advising that penile lengthening and girth enhancement surgery can only be regarded as experimental surgery and that the society is aware of complications and adverse outcomes which should be clearly disclosed to patients considering such surgery [50].

The American Urological Association, Inc.® published statements that consider cutting of the suspensory ligament of the penis for length enhancement and injection of fat cells for increasing penile girth (width), procedures which have not been shown to be safe or effective [51].

**Psychotherapy, Education, and Counseling**

(Table 7)

Shamloul [17] studied 92 patients presenting with a complaint of a small-sized penis. Penile measurement was normal in all cases. After sex education, 86% of men said that their concerns had been relieved. Thirteen men still had concerns and were considering augmentation surgery. However, after 3 months of psychosexual counseling by a psychiatrist, 11 of the 13 men were no longer interested in surgery.

Ghanem et al. [2] studied 250 patients who were counseled and educated about the normal male and female sexual anatomy and physiology. After structured education and counseling (Appendix 1), 241/246 (98%) of physically normal men decided they would not go for surgery even though it was offered for free. This outcome does not necessary mean that patients were relieved from their problem. It merely suggests that given education and realistic information, this group of patients did not choose surgery: da Ros studied 150 physically normal men and reported that after education and counseling the patients decided not to go for surgery [52].

The main limitations with the studies of Shamloul and Ghanem et al. are that they arise from a...
single institution in a conservative society. Bias could arise by the views prevalent within that institution. The impact of patient education might not be as obvious within another society with more access to sex education. These results need to be reproduced in other studies. In addition, these studies did not report long-term follow-up data.

**Traction/Stretching Devices**

Traction devices have been used alone to elongate the penis or as an adjuvant to penile augmentation surgery. The concept is that using traction for months might act as a tissue expander. After suspensory ligament, surgery traction is used to prevent the penis from being entrapped in the infrapubic scar.

**Traction Devices as an Adjuvant to Surgery**

Traction devices were used postoperatively, apparently to decrease the chances of the penis being entrapped into the scar at the site of the severed suspensory ligament (Alter; Ralph et al.) [26,48]. Levine and Rybak used traction therapy for men with shortened penis prior to penile prosthesis implantation [53].

**Traction Devices Without Augmentation Surgery**

Recent data suggest that stretching devices might have a role in the management of penile shortening resulting from Peyronie's disease [54]. In a small study of 15 patients complaining of a small penis, the authors suggested that penile length might be enhanced by the use of penile extenders [55]. Further research, though preliminary, also suggests that penile traction devises might play a role in the treatment of penile shortening [56,57].

Oderda and Gontero conducted a review which aimed to explore whether nonsurgical methods of penile lengthening may have some scientific background. They concluded that penile extender devices seem to be noninferior to surgery [58].

Limitations of the current studies are that treatment satisfaction needs to be assessed by validated questionnaires; the patient counseling, education, and selection criteria need to be clearly defined; and control groups need to be included to compare the satisfaction and sexual function outcome with psychotherapy, education, and counseling. Audit and blinded observers would help avoid bias. Further studies are needed to assess the use of penile extenders in this indication.

**Avoiding Bias in Assessing the Outcome of Surgical and Interventional Procedures**

Studies evaluating surgical and interventional procedures need to be seen as unbiased, properly randomized, and with objective assessment of outcomes [59]. A major source of bias in surgical studies is that it is hard to test objectively “your operation.” There are also issues of commercial competition and personal prestige. The integration of modified randomized trials with prospective audit and quality control is thus essential. Blinded observers should be used routinely for assessing outcome [60]. So far, such measures have not been implemented in assessing penile augmentation procedures or devices. Currently, there are no meta-analysis and no randomized controlled trials. We only have case series with no independent audit or blinded observers. This limitation also applies to studies addressing the impact of psychotherapy, education, and counseling.

**Conclusions**

Based on the current status of science, penile augmentation surgery is still experimental and should be limited to research or university institutions with supervising ethics committees, where a well-informed, properly evaluated, and counseled patient accepts the potential risks of the procedure. Limited data support the use of stretching devices for penile augmentation. Detailed patient education and counseling have been reported to be successful in two studies [2,17]. It is noteworthy that patient populations might vary and that this is a limited evidence from two case series arising from a single institution.

**How Should a Physician Deal with a Patient Complaining of a Small-Sized Penis?**

It is important for physicians attending to patients complaining of a small penis to have a strategy for the management of these patients. These patients usually have suffered from this false belief for years and would not be cured just by being told that they are normal.

Currently, there is no consensus regarding the most effective approach in managing patients presenting with this complaint. Two practical approaches have been adopted by Wylie and Eardley [61] and Ghanem et al. [2].

Wylie and Eardley [61] suggested starting with patient education and normalizing the situation.
explaining that it is a common concern among many men. They also advised “mirror work” where the patient is asked to look at himself undressed in front of a full-length mirror thus observing the penis in the way that he would see other men, which would appear larger [62]. Psychological therapies include cognitive behavioral therapy (CBT). Selective serotonin reuptake inhibitors have also been shown to be effective in treating BDD [63].

Wylie and Eardley [61] suggested that CBT can help build confidence and counteract negative thoughts. The goal of CBT is to solve problems concerning dysfunctional emotions, behaviors, and cognitions. This is achieved through a goal-oriented, systematic procedure. CBT is generally short term and employed for the management of the BDD [63] and other psychological conditions. It is focused on helping patients deal with a very specific problem. Typical thinking patterns in a patient with the BDD may be described as automatic, protective, but also self-defeating [60]. Wylie and Eardley suggested that substitution of alternative generated thoughts (alone or with the input of the therapist) and/or changes in ways of responding (behaving) to such thoughts can bring about dramatic changes. Group therapy has also been suggested [61].

Ghanem and colleagues proposed a structured management and counseling plan for the initial evaluation and counseling of physically normal men with a complaint of a small penis. The steps of this approach are described in Appendix 1.

This position paper addresses men with a normal-sized penis. Cases of a true micropenis must not be overlooked as they are managed differently. Cases of micropenis may be caused by hypogonadotrophic hypogonadism, hypergonadotrophic hypogonadism, or androgen resistance syndromes. A laboratory workup is needed including testosterone, dihydrotestosterone (DHT), follicle-stimulating hormone (FSH), and luteinizing hormone (LH) levels. Karyotyping might be needed if a chromosomal abnormality is suspected. Hormone replacement therapy is effective in cases secondary to testosterone or gonadotropin deficiency [64].

Recommendations

1. According to the available data, most men complaining of a small penis despite an actually normal size are either misinformed or suffer from a psychological disorder that would not be resolved by surgery.

2. Physicians managing physically normal men complaining of a small penis need to be aware of the components and comorbidities of the “BDD” (Table 5) and of the fact that some psychotic or schizophrenic patients may present similar with complaints.

3. Methodology of the treatment, and its effect on penile size and psychological outcomes, should be rigorously documented in future research, following the principles of evidence-based medicine.

4. Penile length augmentation surgeries are not recommended for men with a normal penile size (7.5 cm or above), as they have neither been proven effective nor safe.

5. A true micropenis needs to be excluded. The prognosis of boys with micropenis secondary to gonadotropin or testosterone deficiency is usually good with hormone replacement therapy.

6. A structured counseling and management protocol is suggested in Appendix 1.

Grade of Recommendation: C

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Statement of Authorship

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Appendix 1. Initial Consultation in Managing a (Physically Normal) Patient with a Complaint of a Small Penis (Adapted from Ghanem et al. [2])

Initial Meeting
- Show empathy: Say something like “I know that you have been very concerned about the size of your penis for many years, as many young men do (i.e., he is not alone).” Wylie and Eardley [61] described this as “normalizing the situation.”
- Take him seriously: Measure both the flaccid and stretched penis. Use an orchidometer to measure the testicular size. If the concern is the girth, a PGE1 injection might be considered to measure length, girth, and circumference at full tumescence. Alternatively, ask him to induce an erection by means of masturbation and to measure these parameters at home, according to standardized recommendations.

Explain the Facts
- True range and averages of the size of the normal adult penis, correcting any misconceptions. We mention a normal length range of 7–18 cm with an average of 12 cm. A copy of Table 1 of this article, illustrating the studies of normal penile sizes, may be handed to him.
- Flaccid length is of no functional significance.
- The depth of penetration is not important as the clitoris is on the entrance of the vagina, and female pleasure mainly depends on indirect stimulation of this organ.
- We give examples of the wide elasticity of the vagina to emphasize that size does not matter. One might mention that the vagina allows the passage of the fetal head and recovers again to adapt to the much smaller penile size. The patient is informed that the length of the vagina is around 8 cm.

Advise About the True Options
After the patient understands the general information and that we consider he has a normal-sized penis, he would frequently still ask if there was any way to make it bigger. We thus explain the following:
- Do not believe the ads on the internet (many had already bought advertised products and realized they do not work).
- Medical treatment (testosterone) will not work except in cases of hypogonadism with a true micropenis.
- Girth enhancement with lipo injection or dermal fillers is usually temporary. Dermal grafts or fillers will improve the girth but some men might not be satisfied with the final cosmetic appearance.
- Length enhancement will not be more than 1–2 cm, if any. Most patients comment that they expect a 5–7 cm enhancement.
- We give examples of the wide elasticity of the vagina to emphasize that size does not matter. One might mention that the vagina allows the passage of the fetal head and recovers again to adapt to the much smaller penile size. The patient is informed that the length of the vagina is around 8 cm.

Conclusion of the Consultation
- Show empathy by explaining that you understand that a problem that has been present for many years may not disappear after only one consultation and encourage a follow-up visit to discuss any further concerns.
- It is exceptional that a patient at this stage would still request surgery; if so insist on psychological evaluation first.