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Penile length is normal in most men seeking penile lengthening procedures

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Concerns over penile size and a desire for a longer penis are common in the male population. The number of male patients seeking an andrological consultation for the problem of 'short penis' is increasing. We looked at the numbers of patients presenting to a University andrology clinic over a 2-y period and correlated their perceived penis size with the accepted norms. Sixty-seven patients were evaluated with a median age of 27 (range 16–55) complaining of 'short penis' and requesting surgical correction. Clinical history, including the IIEF-5 questionnaire and an accurate physical examination were obtained. Data concerning measures of penile length and circumference were recorded in both the flaccid and fully stretched states and compared to the normal reference range as previously described in the nomogram we recently published (*Eur Urol* 2001; 39: 183–186.). All patients were also asked to estimate the length of a normal sized penis.

Fourty-four (65.7%) complained of a short penis only while flaccid, 22 patients (32.8%%) while both flaccid and erect, and only one patient (1.5%) was worried only by the erect length of the penis. Fifteen (22.4%) also complained about their penile circumference. Fifty-seven (85%) patients thought a 'normal' penile length should range from 10 to 17 cm (median value of 12 cm). Ten patients (15%) were not able to estimate 'normal' penile size. No patient was found to have a penile length under the 2.5 percentile according to our nomogram. Forty-two (62.7%) subjects recalled the problem starting in childhood, when they felt that their penis was smaller than their friends'. In 25 patients (37.3%) the problem started in the teenage years after seeing erotic images. Our data show that most men who seek penile lengthening surgery overestimate 'normal' penile length. In our series, none of the patients could be classified as having a severely short penis according to our nomogram and none had any anatomical penile abnormality. Most found the use of a nomgram to show them how they compared with other men helpful. We suggest that documentation of such a demonstration should be made for any man seeking an opinion on penile lengthening surgery.

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Introduction

Concerns over penile size and the desire to have a bigger penis are not unusual feelings in the male population, as can be seen not only from the andrological literature but by the universal jokes about the problem.[1] Recently[2] we carried out a large epidemiological study on 3300 young Italian conscripts[3] to provide estimates of normal variations of penile dimensions. To our knowledge, this represents the largest series reported up to now[4–12] (Table 1). In that study we demonstrated that the correct way to express penile dimension are the percentile and that the body mass index (BMI) should be taken into account before the diagnosis of short penis is made. The aim of the present study was to provide the results of a clinical evaluation of patients seeking an andrological opinion on a 'short penis'.

Materials and methods

Sixty-seven patients (median age 27, range 16–55) referred to our andrological clinic in the last 2 y for a 'short penis', were assessed. A careful history with particular interest on the time and the perceived reason the problem started, as well as their sexual habits was collected in all subjects. The IIEF-5

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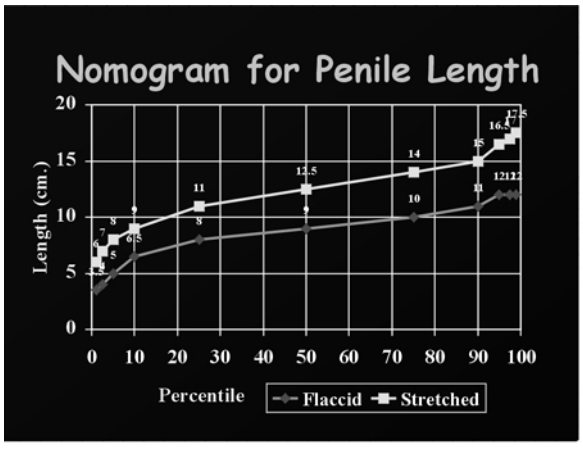
Table 1 Report on penile dimension (NA = not available).

Authors	*Year of publication*	*Number of subjects*	*Age, years (range)*	*Flaccid length (cm)*	*Stretched length (cm)*	*Erect length (cm)*
Loeb	1899	50	17–35	9.41	NA	NA
Schonfeld and Beebe	1942	54	20–25	NA	13.02	NA
Kinsey *et al*	1948	2770	20–59	9.7	16.74	NA
Bondil *et al*	1992	905	17–91	10.7	16.74	NA
DaRos *et al*	1994	150	NA	NA	NA	14.5
Richters *et al*	1995	156	NA	NA	NA	15.99
Wessels *et al*	1996	80	21–82	8.85	12.45	12.89
Smith *et al*	1998	184	NA	NA	NA	15.71
Schneider	2001	111	18–19	8.6	NA	14.48
		32	40–68	9.22	NA	14.18
Present study	2001	3300	17–19	9	12.5	NA

questionnaire was administered in all cases. A complete examination of the genitalia was carried out. The measurements of penile length and circumference in flaccid and fully stretched states were recorded by the same physician (NM).

Penile length was defined as the linear distance along the dorsal side of the penis extending from the pubopenile skin junction to the tip of the glans in the flaccid and fully stretched but still flaccid state, while the penile circumference was measured at the middle of the shaft. Measurements were acquired by means of a tape measure to the nearest 0.5 cm immediately after the men undressed to minimize the effects of temperature. In order to reduce errors of measurements, two measurements were performed, and their median was recorded.

We did not measure the penis in erection: as demonstrated by Chen the length of the stretched penis provides a reliable estimation of its potential maximal elongation during erection.[13]



All data were compared with in our nomogram (Figure 1). Normal was assumed to be above the 2.5 percentile point.

All patients were also asked to estimate the measurements of a 'normal' sized penis.

Results

Fourty-four patients (65.7%) complained of a short penis only in the flaccid state, while 22 (32.8%) complained of a short penis in both the flaccid and erect state. Only one patient (1.5%) was concerned solely with the length of the erect penis. Fifteen men (22.4%) also complained that they felt their penile circumference was too small.

Fifty-seven men (85%) felt they could estimate the idea of 'normal' penile size in the flaccid state. The mean length estimated by the patient was 12 cm (range 10–17). Ten patients (15%) had no idea of a 'normal' penile length. Figures 2 and 3 shows the distribution of patients in our nomogram according to the penile length as assessed with our method. None of the patients were under the 2.5 percentile of our nomogram. Only five patients (7.5%) in flaccid state and three patients (4.5%) in stretched state were under the 5th percentile, while penile lengths in 60 patients (89.5%) whilst flaccid and 61 patients (91%) while stretched were located between the 10th and 90th percentile. In two cases (2.9%) while flaccid, and in three cases (4.5%) while stretched, the values were over the 90th percentile. However the majority of men did have shorter penile length than the men in our previously reported series: 40 (60%) of men had penile length between the 5th and

Percentile	*1st*	*2.5th*	*5th*	*10th*	*25th*	*50th*	*75th*	*90th*	*95th*	*97.5th*	*99th*
Flaccid length (cm)	3.5	4	5	6.5	8	9	10	11	12	12	12
Stretched length (cm)	6	7	8	9	11	12.5	14	15	16.5	17	17.5

Figure 1 Nomogram percentiles.

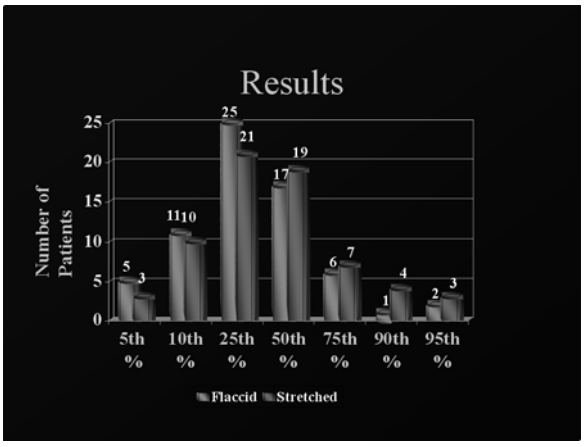


Figure 2 Distribuition of the subjects in the nomogram.

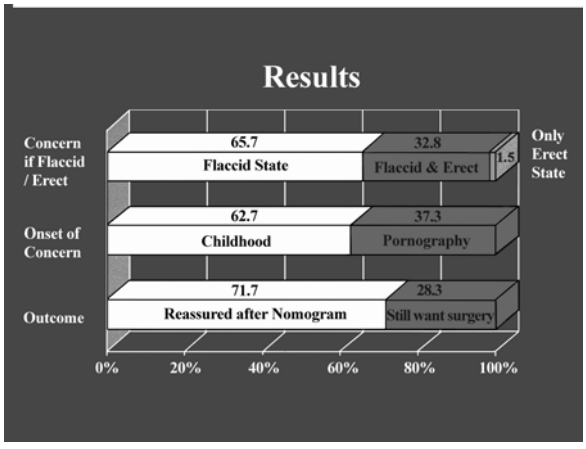


Figure 3.

25th percentiles, with only 20 men (40%) reaching the 50th percentile or above.

No patient had erectile dysfunction according to history and IIEF-5 scores. Examination failed to detect anatomical genital abnormalities in any patient.

Fourty-two (62.7%) subjects could recall the problem starting in childhood, often when they felt that their penis was smaller than their friends', while in 25 (37.3%) the problem started in the teenage years after watching erotic films or looking at magazines. No man developed concerns over a short penis in later life (Figure 3). As far as the educational level was concerned, 18 cases (26.8%) had primary school; 24 cases (35.8%) had a medium level of education, 19 cases (28.3%) attended the high schools while six cases (8.9%) had a university degree.

Forty-eight patients (71.7%) seemed to be reassured about their normal penile size after a thorough explanation during the visit. However 19 patients (28.3%) still wished to explore the possibility of surgery but of these, only 11 agreed to psychological evaluation which we look on as an absolute requirement before considering surgery.

Discussion and conclusion

Preoccupation with penile size is a common condition in the male population and is also a cornerstone of several religions.[14]

Many young Western men seem to base their idea of normality on the images of penises seen in pornography. While we have not been able to construct a nomogram for the penis size of pornographic actors it is our anecdotal impression that men following this particular career are probably not representative of the average male in the genital area!

This appeared to be a major concern in about 40% of our patients. The percentage of men worried about an inadequate penis is likely to increase in the near future as a result of misleading messages coming from these media, particularly in the Internet era, where pornographic images of very large penises are often co-marketed with devices or clinics claiming to be able to increase penile size.

Sixty per cent of our subjects admitted that their feeling of having a small penis started in childhood when they noticed their friends had more developed external genitalia. Our data show that 85% of the patients overestimated normal penile size. According to our nomogram, all penile measurements were within the normal range which is defined by a length above the 2.5 percentile. The absence of any penile abnormality in this study is even more suggestive of an underlying inability to evaluate the proportion of their genitalia, a psychological disorder known as dysmorphophobia.[1] For this reason we strongly suggest the first clinical approach in evaluating this kind of patient is to carry out a careful measurement of penile dimensions using the method described earlier. A thorough discussion of the values found by showing the nomogram, provides scientific evidence of the patient's 'normality'. Although we do not have long-term outcome measures, we had the impression that 70% of our sample seemed reassured after they realised their penis was in the normal range as they were no longer interested in undergoing a surgical procedure. It is however possible that a number of them will seek another opinion.

Our study demonstrates that there are few 'anatomical' reasons to carry out any procedures called 'lengthening phalloplasty'. This term summarises a small group of surgical procedures aimed to increase the size of the shaft mainly in the flaccid state. Apart from new experimental procedures recently described by Perovic[15] the most common techniques to lengthen the penis (section of the

penile suspensory legament, suprapubic lyposuction and V-Y or Z plasty of the suprapubic skin) provide only rudimentary results with a very high patient dissatisfaction rate.

Although no data are available, it is our impression that the vast majority of patients having penile enhancement surgery in private clinics are not fully counselled and are not given realistic expectations of either average penile size or the results they may expect from the operations.

Nonetheless it is interesting that the majority of patients studied were concerned about the appearance of the flaccid penis and this might indicate that, properly counselled, some of these patients might benefit from enhancement surgery designed to improve the appearance of the non-erect penis.

Despite demonstration of an objectively normal sized penis, 30% of our patients still requested some sort of procedure to enlarge what they still perceived as a short penis. We believe these patients should all be offered psychosexual counselling in order to avoid post-surgical disappointment (and potential medico-legal problems).

No evidence exists as to which men will benefit from penile enhancement procedures and we are unable to give guidance as to which if any penis size is a lower limit of normal for surgical consideration.

It is now our practice, before accepting patients for any of these procedures, to document the following:

- The patient has been shown his penile dimensions in relation to the nomogram
- An opinion from an experienced psychosexual counsellor that the patient may benefit from a physical procedure
- The agreement of the patient that any surgery must be viewed as experimental and that the erect penis is unlikely to be significantly enhanced.

In conclusion, the use of a nomogram to compare penile dimensions of a patient referred to the andrology clinic for the problem of short penis is a useful tool which appears to allow some men to have objective reassurance that they are not abnormal and may reduce the demand for unproven surgical procedures. We believe that use of such a nomogram is mandatory in these patients.

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