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ORIGINAL ARTICLE

Hyperprolactinemia-associated erectile dysfunction: retrospective cohort evaluating the effect of prolactin normalization on IIEF-5

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Abstract

OBJECTIVE: In addition to hypogonadism, other endocrine disorders—particularly hyperprolactinemia—can significantly influence erectile dysfunction (ED) in men. The aim of our study was to evaluate the effect of normalizing prolactin (PRL) levels on erectile function in men diagnosed with ED and hyperprolactinemia. The primary outcome was improvement in IIEF-5.

METHODS: We retrospectively analyzed a three group of patients (N = 20) diagnosed with hyperprolactinemia who simultaneously presented with ED, confirmed by clinical criteria and results of the International Index of Erectile Function-5 (IIEF-5) questionnaire. Group Conservative did not receive hyperprolactinemia treatment. Treatment of hyperprolactinemia consisted of pharmacotherapy with dopaminergic agonists (group Dostinex) and/or neurosurgical intervention, depending on individual findings (group Surgery). For ED therapy, each patient received one of the phosphodiesterase 5 inhibitors (PDE5I)—specifically sildenafil, tadalafil, vardenafil, or avanafil.

RESULTS: After successful hyperprolactinemia therapy, all treated patients achieved normalized PRL levels. At the same time, each patient showed an improvement in IIEF-5 scores, indicating a significant enhancement in erectile function. Groups Conservative showed tendency to improve. Groups Dostinex and Surgery reached significant enhancement in erectile function.

CONCLUSION: Our results confirmed the positive impact of resolving the primary endocrine cause on overall sexual health. These findings underscore the importance of comprehensive hormonal assessment in the management of male sexual dysfunction, including measurement of PRL levels. While hyperprolactinemia is a relatively uncommon cause of ED, its treatment—whether pharmacological or surgical—can lead to PRL normalization and a marked improvement in erectile

function. The combined use of PDE5I and hyperprolactinemia treatment represents an effective therapeutic approach that should be considered in the care of men with ED.

INTRODUCTION

Erectile dysfunction (ED) is one of the most common sexual problems in men and represents a significant health and psychosocial problem (EAU Guidelines, 2025). Among the many endocrine factors that can affect erectile function, hyperprolactinemia is considered a relatively rare cause of ED in the general population. On the other hand, in patients with already diagnosed hyperprolactinemia, various forms of sexual dysfunction, including erectile dysfunction and decreased sexual desire, can be observed quite often. (Miller *et al.* 1980) In addition to hyperprolactinemia, erectile dysfunction can be caused by a wide range of other endocrine pathologies that affect hormonal balance and, consequently, the vascular or nervous mechanisms of erection. These include, in particular, thyroid gland disorders such as hyperthyroidism or hypothyroidism, which can significantly influence the metabolic and cardiovascular regulation necessary for erection. In clinical practice, it is therefore important to consider the patient's complete endocrine profile when diagnosing erectile dysfunction and, if needed, to conduct specialized endocrinological examinations. (Broul *et al.* 2024)

Normalization of prolactin levels usually leads to improvement of erectile function, which underlines the clinical importance of early diagnosis and treatment of hyperprolactinemia in men (4). In men, increased prolactin levels lead to a decrease in serum testosterone concentration, which is clinically manifested by a decrease in sexual appetite, erectile dysfunction, weakening of muscle strength, and possibly the development of depressive symptoms (Miller *et al.* 1980). In addition, hyperprolactinemia can negatively affect spermiogenesis, which ultimately worsens fertility. More rarely, gynecomastia or even lactation (galactorrhea) also occurs.

Various cases of elevated prolactin levels can be purely physiological (e.g. during pregnancy or breastfeeding), but there are also a number of pathological causes of hyperprolactinemia – from tumors in the hypothalamic-pituitary axis (especially prolactinomas) to drugs interfering with dopamine synthesis (Faglia, 2001). Recent large-scale analyses confirm that hyperprolactinemia is present in only around 2% of men with ED. However, when it does occur, it often leads to significant sexual symptoms – particularly reduced libido – and its treatment can improve sexual function. Normalization of prolactin levels usually leads to improvement of erectile function, which underlines the clinical importance of early diagnosis and treatment of hyperprolactinemia in men. Nevertheless, complete recovery of erectile function may not occur in every case, as other factors (e.g., concomitant hypogonadism or vascular disease) can modulate outcomes. (Corona *et al.* 2024)

Guidelines European Association of Urology (EAU) recommend targeted hormonal screening in ED – for example, measuring serum prolactin only in men who have concomitant signs of hypogonadism or low sexual desire (EAU Guidelines, 2025). In our practice, we have found that even in the absence of overt symptoms, checking prolactin can uncover occult hyperprolactinemia in men with otherwise unexplained ED, which is important since treating it can significantly improve sexual health. The aim of our retrospective study was therefore to verify this assumption. We focused on men who were treated for ED at our institution and who were simultaneously diagnosed with hyperprolactinemia. We analyzed clinical data, prolactin levels and the course of treatment with an emphasis on the impact of prolactin normalization on erectile function. The results of this analysis may serve to optimize the diagnostic and therapeutic approach in men with ED and simultaneously elevated prolactin levels. We hypothesized that correction of hyperprolactinemia, via different modalities, would improve erectile dysfunction as measured by IIEF-5 scores. Therefore, we tested whether a decrease in prolactin levels would be accompanied by a higher IIEF5 score in three different groups of patients.

METHODS

Study Design and Population

The study sample comprised patients from the Department of Sexology who met the predefined inclusion criteria for enrollment. The study protocol was submitted to the Ethics Committee of Krajská zdravotní, a.s. for expert review and was subsequently approved under registration number 335/2.

We conducted a retrospective cohort study of men with elevated serum prolactin levels (≥300 ng/mL) and concomitant erectile dysfunction (ED). From an initial pool of patients with ED, only those who had confirmed hyperprolactinemia were included. Only patients with a diagnosed hyperprolactinemia, in whom at least 12 months had passed since the initiation of treatment, were included in the study cohort. Exclusion criteria were incomplete medical records, prior therapy for hyperprolactinemia in the preceding 12 months, or significant co-morbid conditions (e.g., active cancer, decompensated cardiopulmonary disease).

Treatment Groups

Participants were divided into three treatment groups based on initial clinical decision-making:

1. **Conservative management:** No medical or surgical intervention was carried out. Participants were assigned to a "Conservative group". These were men whose hyperprolactinemia was caused solely by medication – these men were taking some type

Table SX. Changes in prolactin. Pairwise Comparisons of Group. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Pairwise Comparisons of Group					
Sample 1-Sample 2	**Test Statistic**	**Std. Error**	**Std. Test Statistic**	**Sig.**	**Adj. Sig.[a]**
Surgery-Dostinex	8.291	3.191	2.598	.009	.028
Surgery-Conservative	10.700	3.969	2.696	.007	.021
Dostinex -Conservative	2.409	3.454	.697	.486	1.000

of psychotropic drug with the ability to block the dopaminergic tuberoinfundibular system of the hypothalamus.

2. **Pharmacological therapy (Dostinex):** cabergoline (Dostinex) was administered orally at doses titrated to normalize serum prolactin. Participants were assigned to a "Dostinex group".
3. **Surgical intervention (surgery):** Transsphenoidal resection was done if pituitary adenoma was suspected or confirmed to be causing hyperprolactinemia. Participants were assigned to a "Surgery group". All patients who underwent surgery were subsequently monitored with MRI of the pituitary gland. MRI was performed after surgery, after 3 months, and then after 1 year.

All men in all 3 groups are still being followed from the date of their diagnosis to the present day. Control laboratory measurements were performed every 3, 6 and 12 months and then once a year.

Assignment to groups and selection bias. The allocation of participants reflected real-world clinical decision-making and the etiology of hyperprolactinaemia. Patients with drug-induced hyperprolactinaemia (use of psychotropics affecting the tuberoinfundibular dopaminergic system) were monitored without specific therapy for hyperprolactinaemia (Conservative group). Patients with pituitary microadenoma were treated with cabergoline (Dostinex group), whereas those with macroadenoma were scheduled for transsphenoidal resection (Surgery group). A minority of patients with a normal MRI finding received cabergoline at the clinician's discretion. All patients concomitantly used PDE5 inhibitors for the treatment of ED. This allocation led to differences in baseline PRL levels (e.g., higher baseline PRL in the Surgery group) and may have introduced selection bias and confounding by indication (more severe cases were more often directed to surgery or dopaminergic therapy). We address these issues in the Limitations section.

Investigations

All participants underwent pituitary MRI to evaluate for microadenoma, macroadenoma, or normal pituitary anatomy. Fasting serum prolactin levels were measured pre-treatment (pre_treatment_prolactin) and post-treatment (post_treatment_prolactin). Prolactin levels were deemed normalized if they were <300 ng/mL after therapy.

Outcome Measures

Erectile function was assessed using the International Index of Erectile Function-5 (IIEF-5) questionnaire both pre-treatment (pre_treatment_IIEF5) and post-treatment (post_treatment_IIEF5). Scores range from 5 to 25, with higher scores reflecting better erectile function. ED severity categories were: Severe: 5-7; Moderate: 8-11; Mild to moderate: 12-16; Mild: 17-21; No ED: 22-25.

Tab. 1. Comparison of Treatments and Outcomes Among Patients With Hyperprolactinemia-Associated Erectile Dysfunction.

Outcome		**Conservative (n = 4)**	**Dostinex (n = 11)**	**Surgery (n = 5)**
Pre-treatment Prolactin (ng/mL)	Median IQR	513.00 503.51-693.58	657.54 590.00 -890.00	3801.86 1244.61-6935.42
Post-treatment Prolactin (ng/mL)	Median IQR	138.19 97.20-227.93	215.79 94.31-366.44	356.55 289.73-392.88
Prolactin % Change		-72.9%	-67.2%	+20.0%
Pre-treatment IIEF-5	Median IQR	16.50 11.75-19.75	15.00 13.00-19.00	18.00 11.50-19.00
Post-treatment IIEF-5	Median IQR	20.50 17.75-23.25	23.00 19.00-25.00	22.00 21.00-23.50
IIEF-5 % Change		+34.6%	+46.2%	+22.2%

Note - normal reference range for prolactin levels 115.0 - 300.0 mIU/L. IQR - Interquartile Range, IIEF-5 - International Index of Erectile Function

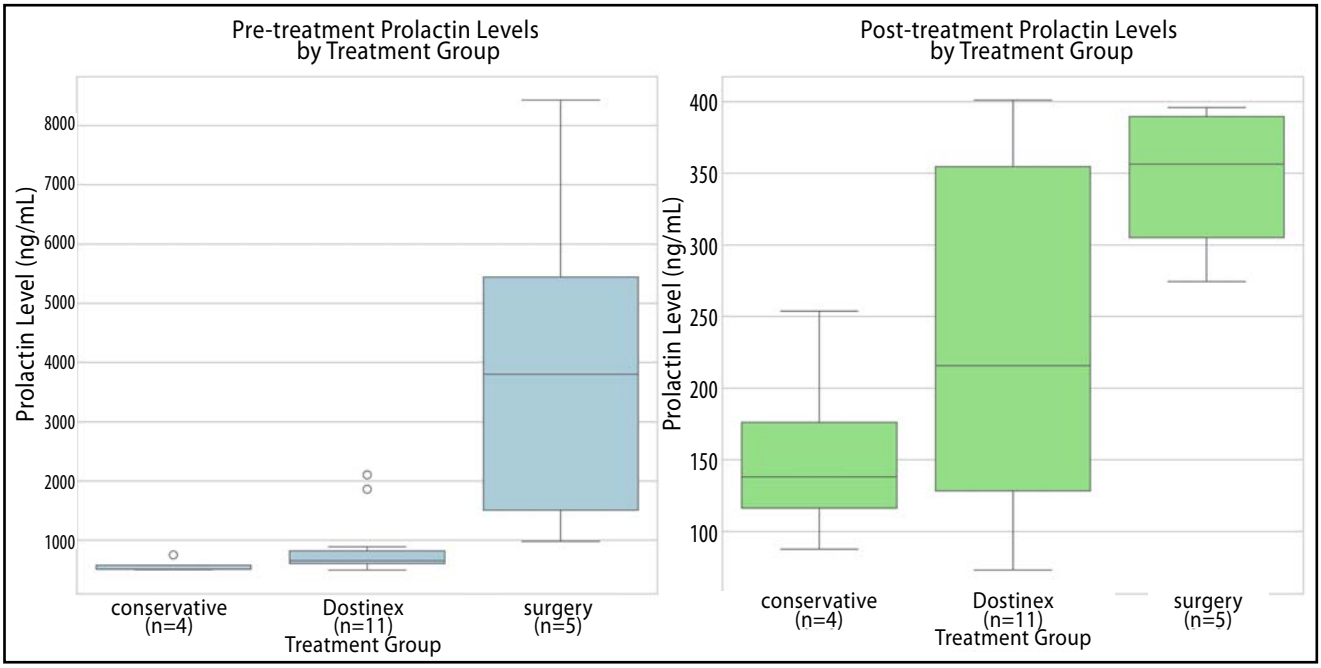

Fig. 1. Pre- and Post-treatment prolactin levels by treatment group.
a) Box-and-whisker plots showing baseline (pre-treatment) serum prolactin levels (ng/mL) in patients receiving no active treatment (Conservative), cabergoline (Dostinex), or surgery. The horizontal lines within each box represent the median, and the box spans the 25th–75th percentiles. Whiskers extend to 1.5 × IQR (interquartile range), and circles indicate outliers. Note the substantially higher median prolactin level among patients in the surgery group. b) Box-and-whisker plots demonstrating serum prolactin levels (ng/mL) after completion of each therapeutic intervention (conservative, Dostinex, or surgery). Median levels and variability are shown. The greatest absolute decrease was observed in the surgery group; however, not all patients achieved normalization (the normalization threshold <300 ng/mL as defined in the study).

Statistical Analysis

Data normality was assessed visually and using the Shapiro-Wilk test, which indicated a non-parametric approach was appropriate. Within-group comparisons (pre- vs. post-treatment) were performed using the Wilcoxon signed-rank test (one-sided). Between-group comparisons were conducted using the Kruskal-Wallis (two-sided) and Pearson Chi-Square (two-sided) tests. Categorical data (normalization rates) were expressed as proportions (with 95% confidence intervals, CIs). Statistical significance was set at $p < 0.05$. All analyses were conducted using Julius (February 15, 2024 version; Caesar Labs, Inc.) for initial data visualization and Microsoft IBM SPSS Statistics 29 for inferential statistics. To minimize selection bias, we report baseline characteristics by group and present pre–post changes in PRL and IIEF-5, including 95% confidence intervals where appropriate. Given the small sample sizes and the retrospective design, we did not perform multivariable modeling; this is planned for subsequent prospective cohorts. For paired comparisons, we also report effect sizes (e.g., $r = Z/\sqrt{n}$) as indicative metrics.

RESULTS

Patient Characteristics and Imaging Findings

Twenty men (n = 20) met inclusion criteria. Median age was 50.5 years (range 28-67). Pituitary MRI identified 5 macroadenomas (Surgery group), 9 microadenomas (Dostinex group), and 6 normal pituitary glands (2 were assignated to the Dostinex and 4 to the Conservative group), distributed across the three treatment groups.

Within-Group Comparisons

Conservative group (n = 4):
- *Prolactin:* Median pre_treatment_prolactin 513.00 ng/mL reduced to 138.19 ng/mL post-treatment, but the change did not reach significance (Z = -1.826, Exact. Sig (1-tailed) $p = 0.063$).
- *IIEF-5:* Median pre_treatment_IIEF5 16.50 increased to 20.50 post-treatment, but the change was did not reached significance (Z = -1.841, Exact. Sig (1-tailed) $p = 0.063$).
- *Normalization rate:* 100% (4/4; 95% CI 51–100%).

Dostinex group (n = 11):
- *Prolactin:* Median pre_treatment_prolactin 657.54 ng/mL reduced to 215.79 ng/mL post-treatment (Z = -2934, Exact. Sig (1-tailed) $p = 0.001$).
- *IIEF-5:* Median pre_treatment_IIEF5 15.00 increased to 23.00 post-treatment (Z = -2940, Exact. Sig (1-tailed) $p = 0.001$).
- *Normalization rate:* 63.6% (7/11; 95% CI 35–85%).

Surgery group (n = 5):
- *Prolactin:* Median pre_treatment_prolactin 3801.86 ng/mL reduced to 356.55 ng/mL

post-treatment (Z = -2,023, Exact. Sig (1-tailed) $p = 0.031$).
- *IIEF-5:* Median pre_treatment_IIEF5 18.00 increased to 22.00 post-treatment Z = -2.060, Exact. Sig (1-tailed) $p = 0.031$).
- *Normalization rate:* 20.0% (1/5; 95% CI 4–62%).

Between-Group Comparisons

Changes in prolactin levels differed significantly among the three groups (Kruskal-Wallis $p = 0.01$) (Kruskal-Wallis test $X^2 = 9.03$; df =2; $p = 0.01$; N = 20). Group SURGERY differed from group Dostinex and Conservative (Table SX). The group SURGERY showed higher changes compared to the other two groups. Changes in IIEF-5 scores did not differ significantly among the groups (Kruskal-Wallis test, $X^2 = 0.47$; df =2; $p = 0.79$; N = 20). Regarding the normalization rate, the groups showed a tendency to differ, but this tendency did not reach significance. (Pearson Chi-Square = 6.06, df = 2, Exact Sig (2-sided) $p = 0.058$, N = 20).

Key Observations

The Dostinex and Surgery group demonstrated a statistically significant reduction in prolactin ($p = 0.0010$) and an increase in erectile function scores ($p = 0.001$).

The conservative group showed the highest normalization rate (100%) but had relatively lower baseline prolactin levels.

The surgical group exhibited the largest absolute drop in prolactin (from a very high baseline) but a lower overall normalization rate of 20%.

All groups experienced improvements in IIEF-5 scores, although these changes did not reached statistical significance in the least numerous group (n = 4, $p = 0.063$, Conservative group).

Pre- and post-treatment data are presented for three groups: Conservative management (no active intervention), pharmacologic therapy with cabergoline (Dostinex), and transsphenoidal surgery. Median and interquartile range (IQR) values are shown for prolactin levels and International Index of Erectile Function-5 (IIEF-5) scores. Prolactin normalization rates (<300 ng/mL) are reported with 95% confidence intervals (CI). Within-group p-values are from Wilcoxon signed-rank tests comparing pre- and post-treatment measures. Note the significant difference in prolactin percentage change among the three groups ($p = 0.01$) and the nonsignificant difference in IIEF-5 percentage change ($p = 0.47$).

DISCUSSION

Limitations. This study is retrospective, nonrandomized, and lacks a placebo control, which may result in selection bias and confounding by indication. Allocation to groups reflected routine clinical

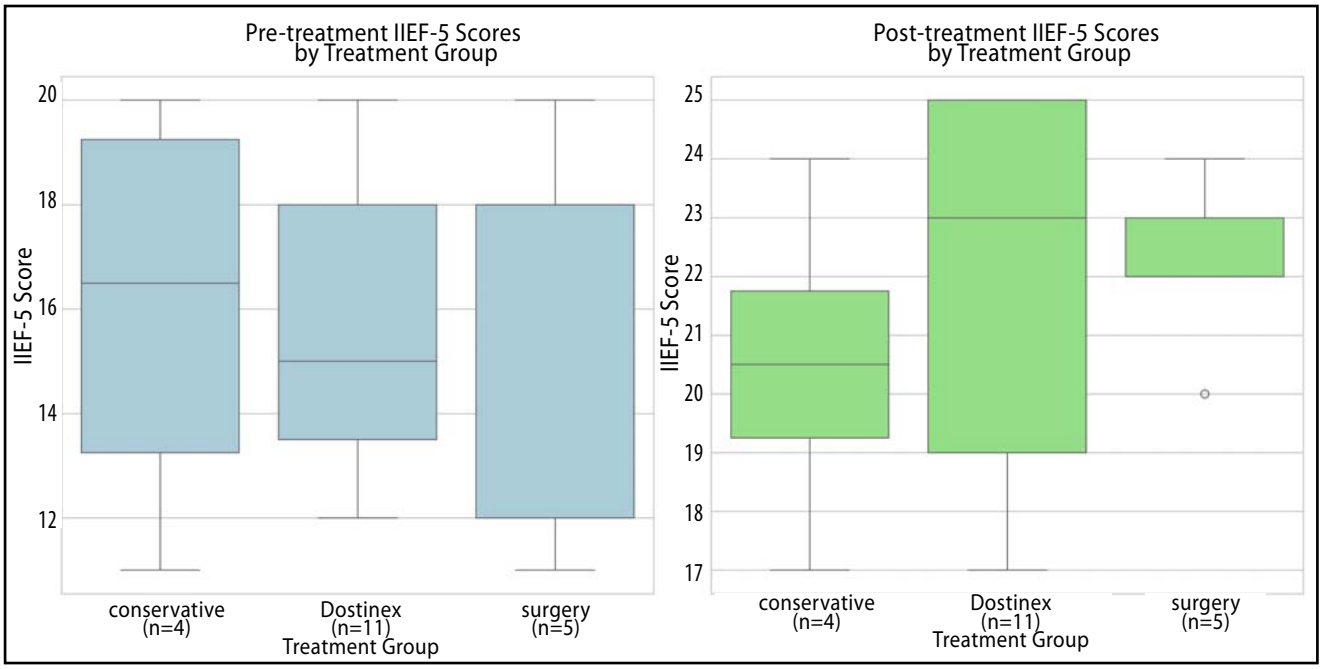

Fig. 2. Pre- and Post-treatment IIEF-5 scores by treatment group.
a) Box-and-whisker plots illustrating baseline erectile function (IIEF-5) scores for the three treatment groups. Lower scores indicate more severe erectile dysfunction. Patients in the surgery group had slightly higher median pre-treatment scores, though within-group variability was high in all three cohorts. b) Box-and-whisker plots of the IIEF-5 erectile function scores following conservative management (conservative), cabergoline (Dostinex), or pituitary surgery. All groups showed some improvement, with the Dostinex group demonstrating the highest median post-treatment IIEF-5 score.

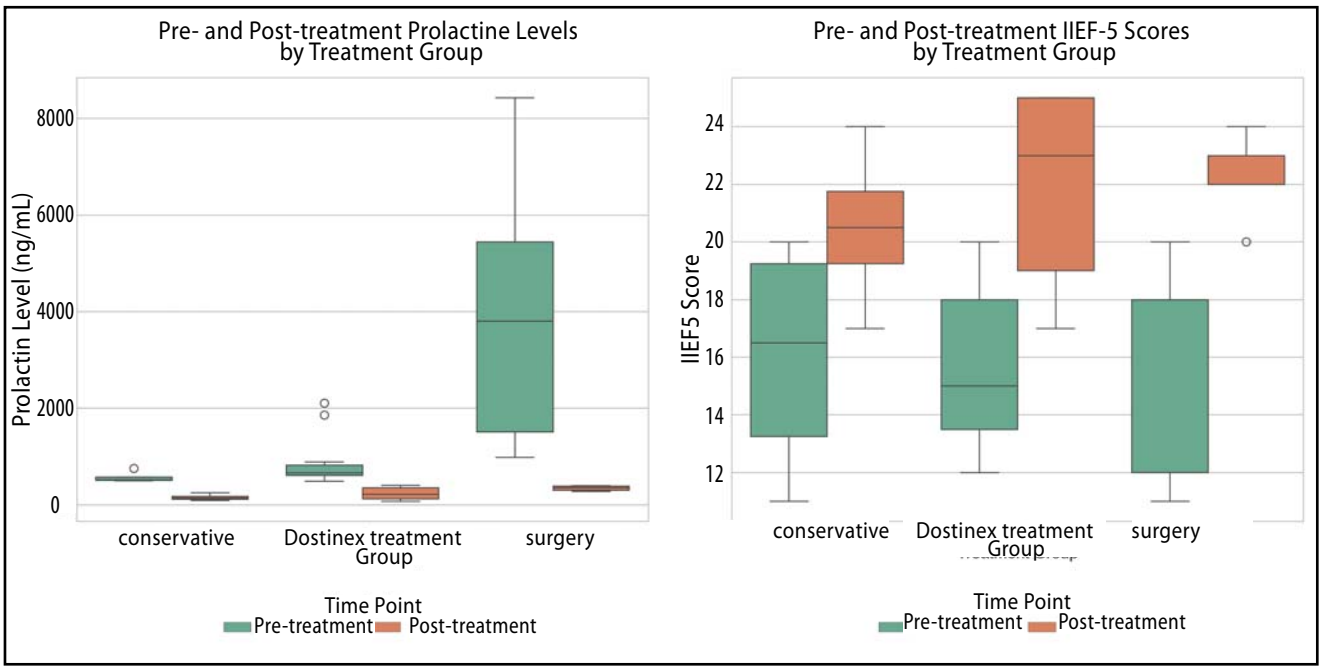

Fig. 3. Merged Pre- and Post-treatment plots

a) *Pre- and post-treatment prolactin levels by treatment group.* Side-by-side boxplots showing baseline (green) and post-therapy (orange) serum prolactin levels (ng/mL) for each group (Conservative, Dostinex, Surgery). A statistically significant reduction was observed in the Dostinex group (and Surgery group. b) *Pre- and post-treatment IIEF-5 scores by treatment group.* Side-by-side boxplots comparing erectile function scores (IIEF-5) before (green) and after (orange) treatment in all three groups. Although every group exhibits an increase in median IIEF-5, the Dostinex and Surgery group shows a significant improvement.

practice (etiology of hyperprolactinaemia, MRI findings, and severity) rather than randomization; consequently, groups differed in baseline PRL and likely also in unmeasured factors (e.g., disease duration, comorbidities). Another limitation is the concomitant use of PDE5Is by all patients, which may have attenuated between-arm differences in short-term changes in IIEF-5, although it reflects real-world care. Small subgroup sizes, particularly Conservative (n = 4) and Surgery (n = 5), reduce the precision of estimates and statistical power; therefore, we used nonparametric procedures and a conservative interpretation of effects. Between-group differences in IIEF-5 were not statistically significant, whereas within-group improvements were significant in Dostinex and Surgery; these findings should be interpreted in light of the above limitations. From an ethical perspective, placebo control in symptomatic hyperprolactinaemia with adenomas is problematic; however, in mild or drug-induced forms, a short delayed-start design may be acceptable (see Future directions).

In this cohort of men with hyperprolactinemia-associated erectile dysfunction, all three treatment strategies produced some degree of improvement in erectile function. However, key distinctions emerged in terms of prolactin normalization and erectile function outcomes.

Cabergoline (Dostinex) therapy demonstrated the most consistent and statistically significant improvements in both prolactin levels and IIEF-5 scores. This finding aligns with prior literature highlighting dopamine agonists as a mainstay of therapy for hyperprolactinemic states. The Conservative group, although lacking active intervention, had a surprisingly high normalization rate. This may be attributable to milder baseline prolactin elevations and possibly transient or fluctuating hyperprolactinemia. In clinical practice, careful observation with periodic laboratory monitoring can be appropriate in selected patients with marginally elevated levels, as some prolactin elevations resolve spontaneously when underlying stressors or confounding medications are removed.

The surgical group achieved the largest absolute reduction in prolactin from a high baseline (median ~3800 ng/mL). Although the final median prolactin level decreased substantially, the normalization rate was the lowest. This suggests that while surgery remains an important option for patients with macroadenomas causing compressive symptoms or those nonresponsive to pharmacological therapy, it may not ensure biochemical remission in all cases. Additionally, surgical success may depend on tumor location, size, and intraoperative factors.

Interestingly, erectile function improved across all treatment arms, indicating that correction of hyperprolactinemia—even partial—is associated with better sexual function. Nevertheless, the Dostinex group's statistically significant gain reaffirms the role of medical therapy as a first-line approach for hyperprolactinemia in men presenting with ED, barring urgent indications for neurosurgical intervention.

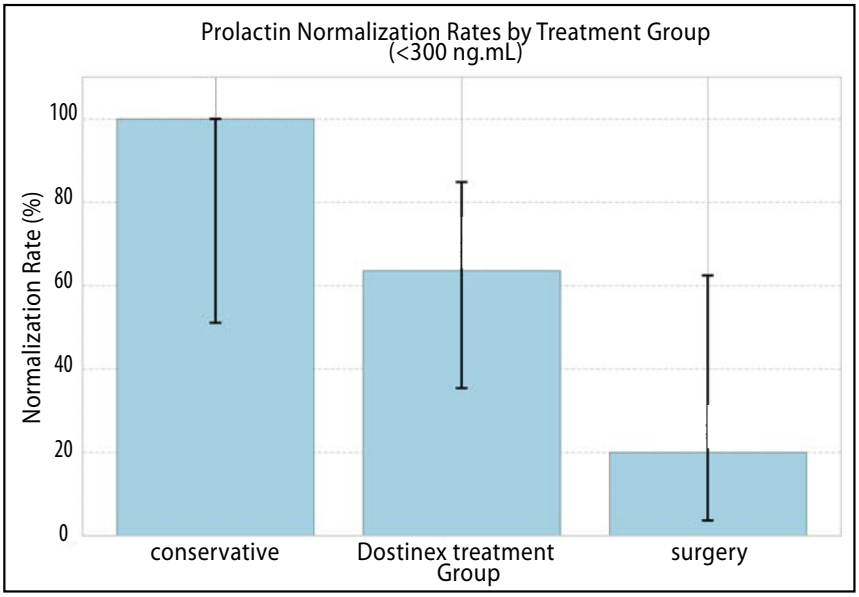

Fig. 4. Prolactin normalization rates (<300 ng/mL) by treatment group. Bar chart displaying the percentage of patients achieving prolactin levels <300 ng/mL in the Conservative, Dostinex, and Surgery groups, with 95% confidence intervals. The Conservative group showed the highest normalization rate (100%), followed by the Dostinex group (64%), and the Surgery group (20%). The groups tended to differ ($p = 0.058$).

In conclusion, these results support the efficacy of cabergoline in normalizing prolactin and improving erectile function in hyperprolactinemic men. Surgery can be highly effective for prolactin reduction in adenoma cases but may not guarantee normalization, and the decision to operate should be personalized based on adenoma characteristics and the patient's clinical status. Conservative management can be an option in carefully selected patients. Further prospective studies with larger cohorts are warranted to refine treatment algorithms for hyperprolactinemia-related ED.

Our findings are in line with previous reports that treating the underlying hyperprolactinemia improves sexual function. (Johri *et al.* 2001, Liu *et al.* 2024) For example, a longitudinal study by Hollander *et al.* (Hollander *et al.* 2016) observed that 6 months of cabergoline therapy restored normal erectile activity (as measured by nocturnal penile tumescence) in the majority of hyperprolactinemic men. More recently, Andereggen *et al.* (Andereggen *et al.* 2024) reported a 73% long-term remission of ED symptoms after prolactinomas were treated, regardless of whether surgery or dopamine agonists were used. These studies, together with our cohort, underscore that addressing the high prolactin state – either medically or surgically – is fundamental to improving ED in affected patients.

It is noteworthy that all patients in our series received a phosphodiesterase-5 inhibitor during treatment. This likely maximized erectile outcomes in the short term. In clinical practice, we recommend not hesitating to treat ED symptoms with a PDE5i while concurrently addressing hyperprolactinemia – an approach supported by case reports of combined therapy yielding full recovery of erectile function and libido. Our data suggest that PDE5i therapy can be safely initiated even before complete prolactin normalization, provided the patient's cardiovascular status allows, to improve quality of life early in the treatment course.

A limitation of our study is the low number of respondents in the Surgery and Conservative groups. We believe that these low numbers are the reason that some phenomena did not reach the significance threshold. Because the prevalence of hyperprolactinemia in the general population is low, we hope that even the trends may provide useful insights.

Future directions. We propose two complementary prospective strategies:

(A) Prospective randomized trial in non–drug-induced microadenomas and in mild/fluctuating hyperprolactinaemia without macroadenoma.

Design: multicentre, double-blind, 1:1, cabergoline vs. placebo/delayed-start for 12–16 weeks on top of standardized ED treatment (uniform PDE5I regimen, e.g., tadalafil 5 mg once daily). Stratification: (i) aetiology (microadenoma vs. no adenoma), (ii) baseline PRL (quartiles), (iii) presence of hypogonadism. Primary outcome: change in IIEF-5 from baseline to week 12. Secondary outcomes: PRL normalization, changes in testosterone, libido, quality of life, and adverse events. Blinded assessment of IIEF-5, centralized randomization, and a pre-registered protocol with a Statistical Analysis Plan (SAP). Ethical safeguards: in patients with a clear indication for immediate dopaminergic therapy (e.g., visual/compressive symptoms), randomization to placebo is excluded—such patients will not be enrolled in the RCT.

(B) Pragmatic prospective registry/clinical study with preference-based randomization in prolactinomas where surgery is an option.

Objective: compare dopaminergic therapy vs. early surgery in tumours meeting eligibility criteria for

both approaches. Where randomization is not feasible (patient/surgeon preference), apply propensity-score methods (matching/weighting) and pre-specified core outcomes (PRL normalization, IIEF-5, visual fields, residual tumour on MRI, adverse events).

Bias minimization in future studies: standardized MRI and laboratory schedules; a uniform PDE5I regimen with adherence documentation; prohibition of psychotropic medication changes during a run-in period (or protocolized titration); central MRI reading; blinded assessment of IIEF-5 and libido; and pre-defined rules for rescue therapy.

CONCLUSION

Our analysis underscores the importance of hyperprolactinemia as a potentially modifiable cause of erectile dysfunction (ED) in men, even though it remains relatively rare in the general population. Timely diagnosis and appropriate treatment of hyperprolactinemia—whether through pharmacotherapy with dopaminergic agonists or via endocrinological or neurosurgical intervention—can lead to a marked improvement in erectile function. For patients with ED, comprehensive hormonal evaluation, including measurements of prolactin and androgens, is essential.

Phosphodiesterase type 5 inhibitors —sildenafil, tadalafil, vardenafil, avanafil—remain a cornerstone of ED therapy. Our findings indicate that PDE5I therapy can be initiated even before complete normalization of prolactin levels, provided the patient's individual clinical condition and potential comorbidities are taken into account. Each case should be assessed individually, and the treatment plan optimized in collaboration with an endocrinologist or other specialists. This multidisciplinary approach enables targeted management of the pathophysiological factors contributing to hyperprolactinemia and concomitant ED.

From a practical standpoint, we recommend routinely including a full hormonal assessment, with specific attention to prolactin levels, in the diagnostic algorithm for men with ED. If hyperprolactinemia is detected, it is crucial not only to determine its etiology (e.g., prolactinoma, pharmacologically induced hyperprolactinemia, or structural lesions in the hypothalamic-pituitary region) but also to carefully consider any other factors affecting endocrine balance. Particular emphasis should be placed on initiating treatment promptly, as correcting hyperprolactinemia can lead to significant improvements in erectile function and overall sexual satisfaction for many patients. In the future, additional prospective studies that incorporate a broader spectrum of comorbidities and evaluate the long-term outcomes of combined PDE5I and dopaminergic therapy would be highly beneficial.

Ultimately, recognizing hyperprolactinemia as a modifiable risk factor – though uncommon – can lead to significant improvements in erectile function and overall sexual satisfaction in those affected. Further research, ideally prospective, will help to refine how we integrate endocrine interventions with standard ED therapies for optimal patient outcomes.

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