

PSYCHOLOGICAL FEATURES ASSOCIATED WITH LOWER URINARY DISORDERS

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ABSTRACT

Objective: To identify the psychological features (PFs) for the patients with lower urinary tract disorders (LUTD), as but few attempts have been made in this direction.

Methods: The subjects were patients with various internal complaints (including LUTD). Each of them was interviewed for approximately one hour in order to identify its psychological features (PFs) (out of a list of 143 possible ones). Thereafter we examined in turn each of the 143 PFs, aiming to discover whether it increases the odds for any of the various areas of pathology.

Results: The PFs that appear to significantly increase the odds for LUTD were: “Preoccupied/ discontented/ in conflict with her/ his social group”, “Discontented with her/ his colleagues/ mates/ relatives” and “Being in conflict with the people she/ he interacts with”. A further PF that seems to increase the odds for LUTD is “Discontented with her/ his partner”, but the results were not statistically significant. As these four PFs are similar in meaning, joining them into a single one appeared as legitimate. This joint PF proved to significantly increase the odds for LUTD.

Conclusions: The results suggest that a key PF for the patients with LUTD might be: “Discontented/ in conflict with the people she/ he interacts with”. It is yet unclear whether this PF is an accompanying or a predisposing feature for the LUTD. Further studies are necessary in order to establish whether interventions addressing this psychological issue could decrease the recurrence rate of the LUTD.

Key words: psychological profile, lower urinary tract disorders

Abbreviations: PF = psychological feature, LUPFs = lower urinary PFs.

CL = confidence limits, SS = statistically significant, ASS = absolutely SS, RSS = relatively SS, NSS = not SS (the last three will be defined later), SSnce = statistical significance, OR = odds ratio; E+ = (number of) exposed patients, E- = (number of) not exposed patients (i.e. patients having/ not having a certain PF); D+ = (number of) diseased patients, D- = (number of) disease-free patients (i.e. patients having/ not having a certain pathology); UTI = urinary tract infections, LU = lower urinary, LUT = LU tract, LUTD = LUT disorders, LUTS = LUT symptoms, p-LUTS = patients with LUTS.

INTRODUCTION

There are some studies exploring the psycho-emotional correlations of the lower urinary tract symptoms (LUTS) (1-7), but these are limited to general psychological tendencies. Therefore we consider as useful a more finely tuned exploration of the psychology of patients with LUTS.

OBJECTIVE

To find out whether certain psychological features (PFs) are encountered with a higher frequency in the patients with LUTD.

MATERIALS AND METHODS

The methods we have employed were extensively presented in a previous paper (8). We have undertaken a retrospective study aimed at unraveling the putative psychological correlations of some of the most common internal disorders. In this paper we shall present the results concerning the LUTD. Eligible for the study were 491 (132 M, 359 F) patients; among them, 84 (8 M; 76 F) had LUTD or LUTS (age: $41,24 \pm 14,42$ yrs for females, $46,63 \pm 18,17$ yrs for males). We have resorted to an epidemiological approach, considering each of the

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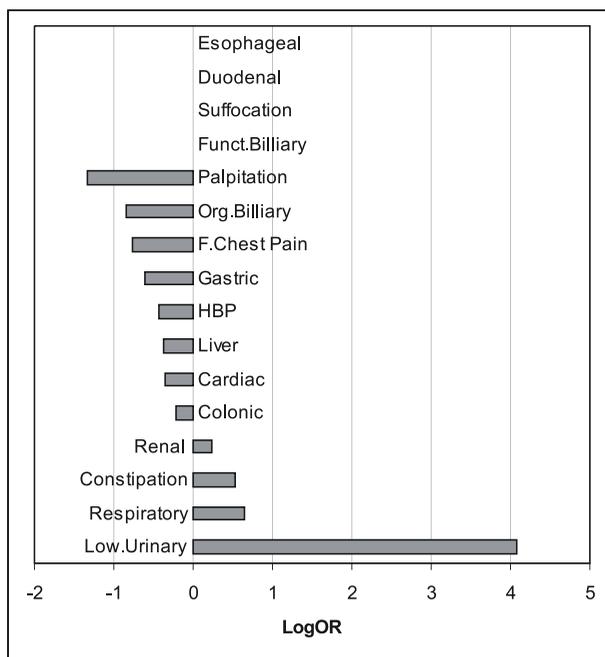
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PFs in turn as being the exposure (E), and each of the pathologies in turn as being the disease (D).

RESULTS

The following table (Table 1) contains a list of the PFs for which the results concerning the LUTD were at least RSS. Next I shall define these 11 PFs, accompanying each with a figure (Charts 1 through 11) visually suggesting the position of each of the main areas of pathology in relation to that PF. The natural logarithm of the odds ratio was used to quantify the relative positions of the various areas of pathology. In these figures: Cardiac = cardiac disorders, Colonic = colonic disorders, Duodenal = duodenal disorders, Esophageal = esophageal disorders, F.Chest pain = functional chest pain, Funct.Billiary = functional billiary disorders, Gastric = gastric disorders, HBP = high blood pressure, Liver = liver disorders, Low.urinary = lower urinary disorders. Org.Billiary = organic billiary disorders, Palpitation = functional palpitations, Renal = renal disorders, Suffocation = functional dyspnoea.

Chart 1. Preoccupied/ discontented/ in conflict with their social group.

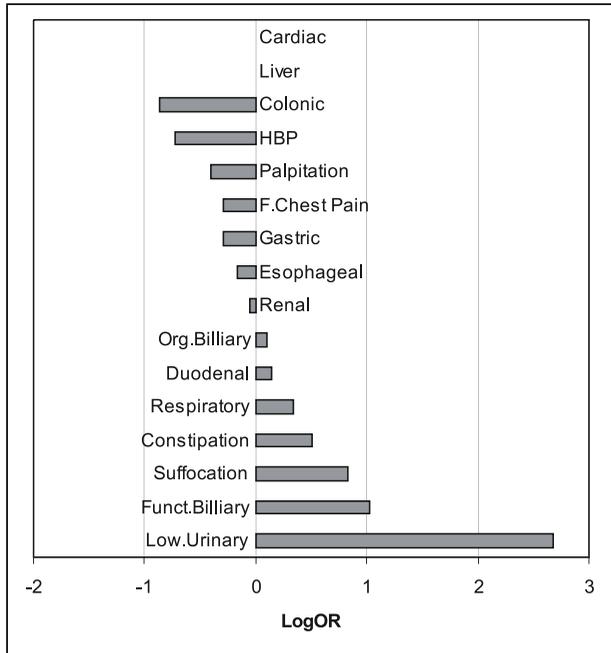


The patients (N = 21: 16 F, 5 M) discontented with the behavior of the persons they are interacting with, without emotional involvement.

TABLE 1. Psychological features correlated with LU complaints. The odds ratio (OR) are used to evaluate the strength of the correlation

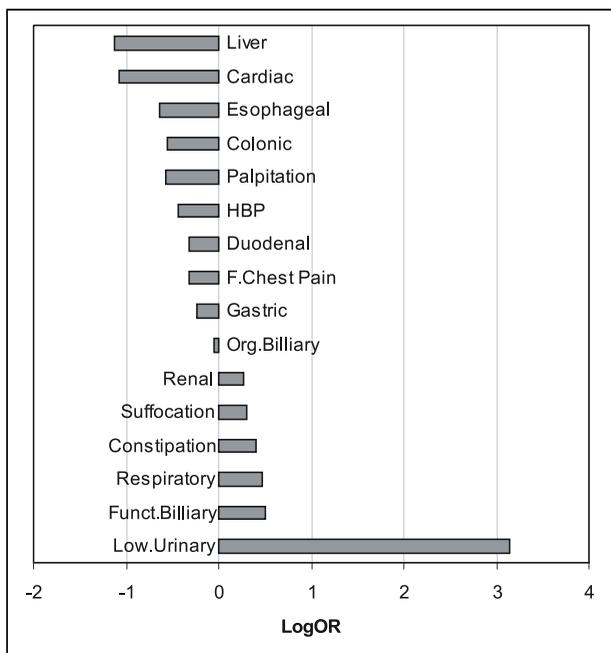
Psychological Feature (Exposure=E)	Disease (D)	E+ D+	E+ D-	E-D+	E-D-	OR	CL for OR	P
Preoccupied/ discontented/ in conflict with her/ his social group	LUTD	19	2	65	405	59.19	13.59-529.01	7×10 ⁻²⁰
Discontented with her/ his colleagues/ mates/ relatives	LUTD	19	8	65	399	14.58	5.75-39.81	4×10 ⁻¹⁴
Discontented with colleagues/ mates/ relatives/ social group	LUTD	31	10	53	397	23.22	10.27-55.64	3×10 ⁻²⁵
Discontented with her/ his partner	LUTD	37	91	47	316	2.73	1.62-4.58	7×10 ⁻⁵
	Renal	8	120	11	352	2.13	0.72-5.97	0.1
	Duodenal	8	120	8	355	3.04	0.97-9.50	0.04
	F.Dyspnea	19	109	28	335	2.09	1.05-4.04	0.03
Discontented with the people she/ he interacts with	LUTD	52	97	32	310	5.19	3.07-8.82	5×10 ⁻¹²
Being in conflict with the people she/ he interacts with	LUTD	23	33	61	374	4.27	2.23-8.05	1×10 ⁻⁶
Discontented/ in conflict with the people she/ he interacts with	LUTD	59	104	25	303	6.88	3.99-12.03	2×10 ⁻¹⁵
Correct, right, just, fair	LUTD	30	68	54	339	2.77	1.58-4.77	0.0001
Susceptible/ easily hurt	LUTD	21	42	63	365	2.90	1.52-5.38	0.0005
	F.Dyspnea	12	51	35	393	2.64	1.17-5.61	0.01
	Palp.	16	47	60	368	2.09	1.03-4.04	0.03
Revolted, indignant	LUTD	10	16	74	391	3.30	1.28-8.07	0.006
Feeling accused, offended, disrespected, debased, humiliated, reprimanded	LUTD	24	70	60	337	1.93	1.07-3.39	0.02
	Renal	8	86	11	386	3.26	1.10-9.19	0.02
	Esophageal	15	79	27	370	2.60	1.22-5.33	0.008

Chart 2. Discontented with his/ her colleagues/ mates/ relatives.



This category includes the patients (N = 41: 24 F, 3 M) discontented with the behavior of the persons they are emotionally (but not romantically) involved with: relatives of any degree, friends and colleagues (partners excluded), by contrast to the community, the social group, a certain social category etc. (an interaction with only material, social or professional reasons), which was the case for the previous PF.

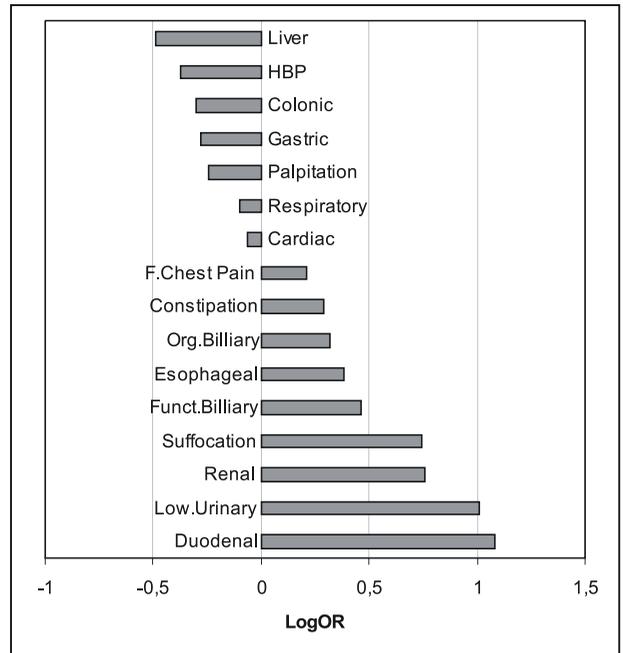
Chart 3. Discontented with his/ her colleagues/ mates/ relatives/ social group.



We have aggregated the two previous PFs into one: patients (N = 41: 35 F, 6 M) discontented with

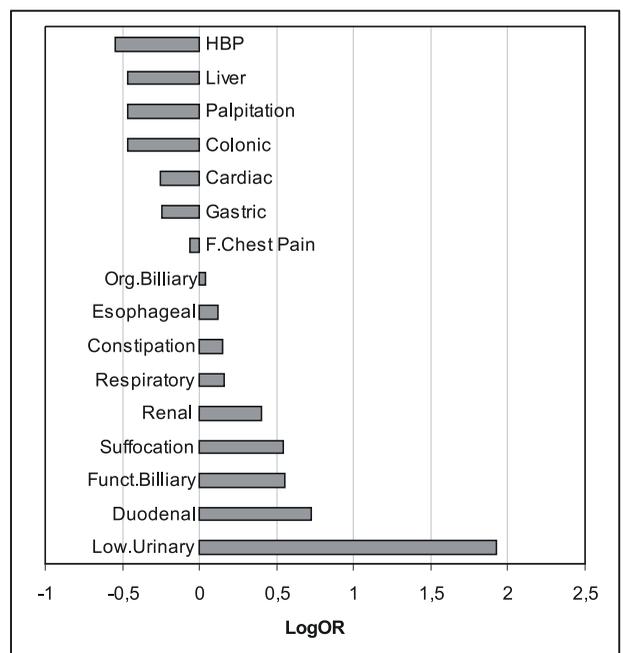
the behavior of the persons (close or otherwise) they are interacting with, but with whom they do not have a romantic involvement.

Chart 4. Discontented with his/ her partner.



This category includes the patients (N = 128: 120 F, 8 M) discontented with certain attitudes, gestures, deeds, or habits of the persons they are romantically involved with (namely, their partners: husbands/wives, boy/ girlfriends, lovers).

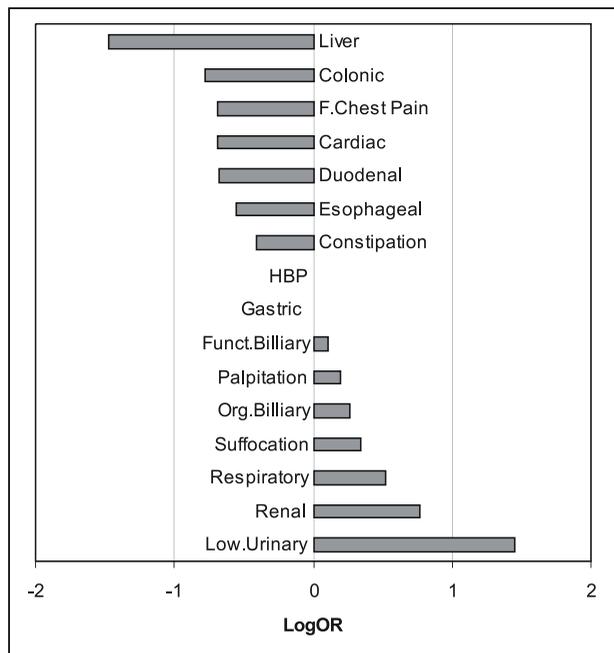
Chart 5. Discontented with his/ her partner/ colleagues/ mates/ relatives/ social group.



This category includes the patients (N = 149: 136 F, 13 M) accomplishing the criteria for either the 1st, the

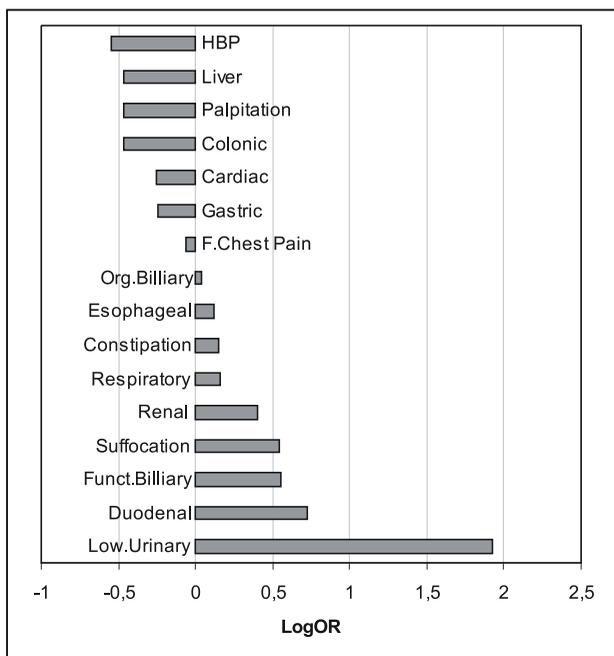
2nd or the 4th of the previous PFs, namely those discontented with the behavior of the persons they are interacting with, no matter whether they are emotionally/romantically involved with those persons or not.

Chart 6. Being in conflict with the people they interact with.



This category includes the patients (N = 56: 48 F, 8 M) declaring they are in a state of conflict with the people they interact with (relatives, friends, colleagues, neighbors etc.).

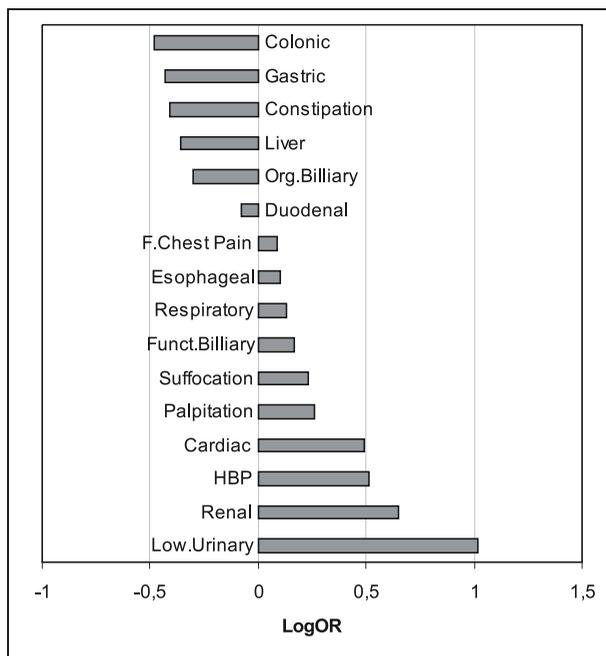
Chart 7. Being in conflict/ discontented with the people they interact with.



This category includes the patients (N = 163: 147 F, 16 M) accomplishing the criteria for either the 1st, the

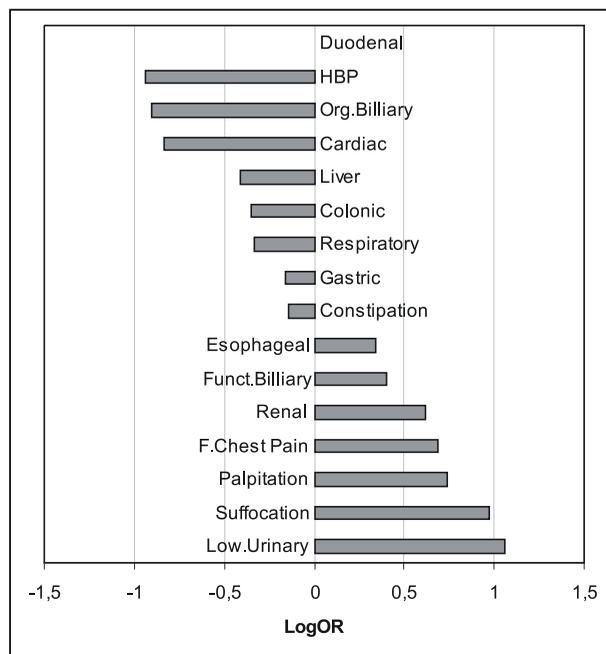
2nd, the 4th or the 6th of the previous PFs, i.e. all the patients declaring they are in conflict and/or discontented with the behavior of the persons they interact with, no matter whether they are emotionally/romantically involved with those persons or not (partners, relatives, friends, colleagues, neighbors, social group etc.)

Chart 8. Correct, right, just, fair.



This category includes the patients (N = 98: 71 F, 27 M) declaring they behave/ act in a correct, right, just, fair manner and ask/ wish to be treated in the same manner. Many of these patients explicitly declare they look for and endeavor to impose and preserve justice and/ or stand out against injustice.

Chart 9. Susceptible / easily hurt.



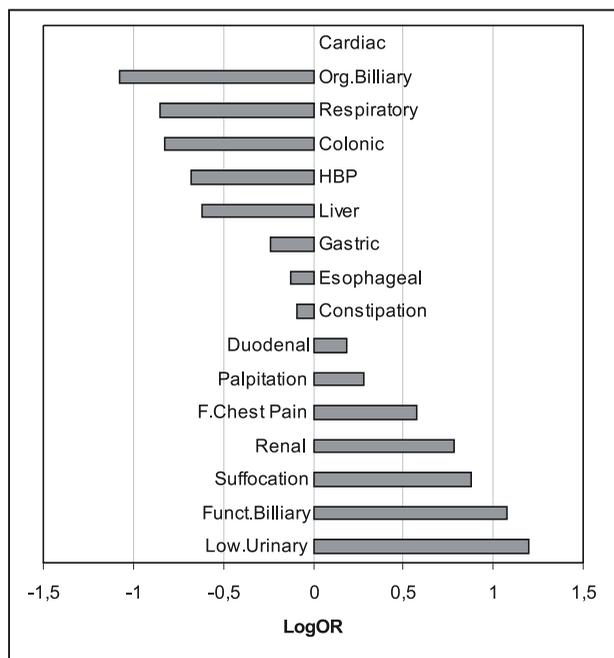
This category includes the patients (N = 63: 61 F, 2 M) with a psychic hypersensitivity to the environment, to minor aggressions or even to trivial, harmless stimuli.

Trifling events are blown out of proportion and perceived as serious injuries or insults, eliciting an exaggerated psychic response (manifested or not to the exterior): indignation, dissatisfaction, anger, always with a feeling hurt hue.

Anodyne gestures or words are perceived as hurtful.

Usually this hypersensitivity is the consequence of piled up hard feelings, gathered during a long period and incompletely processed if at all.

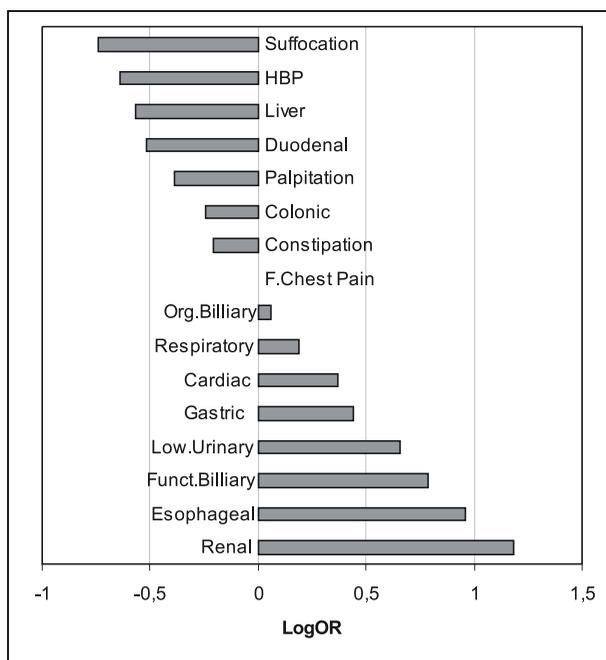
Chart 10. Revolted/ indignant.



This category includes the patients (N = 26: 23 F, 3 M) that frequently feel revolted and/or indignant (usually because they consider not having been treated fairly).

Chart 11. Feeling accused, disrespected, debased, offended, humiliated, or reprimanded.

This category includes the patients (N = 94: 81 F, 13 M) declaring they feel injured by offences, reproaches, or humiliations, and they can hardly tolerate being discredited, debased, or accused, especially unjustly.



DISCUSSION

In the attempt to identify the relevant PFs for the p-LUTS, my aim has been to reach the finest balance between specificity and sensitivity. A more specific PF is expected to be more restrictive (pertaining to only a few patients), therefore less sensitive, leaving outside a great number (probably the majority) of the patients. On the other hand, a more sensitive PF may be less restrictive (referring to a larger number of patients), therefore less specific.

I shall call homogeneous a narrowly defined PF. The homogeneity decreases (while the heterogeneity increases) as the range of the definition grows broader. For example, “discontented with friends” and “discontented with neighbors” are two narrowly defined, homogeneous PFs. The joint PF “discontented with friends and/ or neighbors” is a more broadly defined, therefore less homogeneous PF. Just because they look similar, tiny, homogeneous PFs (likely to be more specific but less sensitive) should not be pooled together into big, but heterogeneous PFs (likely to be more sensitive but less specific) – one should first prove they are associated with a similar spectrum of pathology.

At first I used very restrictive PFs, which lead to an unacceptable large number of PFs to analyze. By successively joining similar symptoms, less restrictive (therefore less specific) but more sensitive PFs ensued. The best guide in deciding where to stop was the level of SSnce. So, let us first analyze the PFs for which the results were ASS.

The most specific for the p-LUTS seems to be “Preoccupied/ discontented/ in conflict with her/ his social group” (i.e. with the people toward whom the patient has no emotional involvement) – almost all (19 out of 21) of my patients having this PF also had LUTD. On the other hand only a minority (less than a quarter) of the p-LUTS actually had this PF. This brought me to the idea that, although very specific, it might be too restrictive, lacking sensitivity.

Less specific, but still comfortably in the ASS range, is the next PF: “Discontented with her/ his colleagues/ mates/ relatives” (i.e. with the people toward whom the patient has emotional, but not romantic involvement). As the two PFs are evidently similar, I joined them into one, namely “Discontented with her/ his colleagues/ mates/ relatives/ social group”, with a spectacular increase in the SSnce. Still, only a minority (slightly more than one third) of the p-LUTS have this joint PF.

The only remaining PF for which the absolute SSnce was reached is “Being in conflict with the people around her/ him”, which does little in the sense of broadening the meaning of the first two PFs. One way to achieve such a broadening would be to include a PF similar to the first two, but referring to the person for whom the patient is suppose to have a romantic involvement: “Discontented with her/ his partner”. Unfortunately this PF seems to be far less specific for the p-LUTS than the first two ones. Therefore the results are only RSS.

One may notice that all of the so far mentioned PFs are variations on the theme of “discontent/ conflict in the interaction with other people” and for almost all of them LUTD are the dominant pathology – we shall call them LUPFs. So an acceptable level of homogeneity can be maintained by joining all into a single PF: “Being in conflict/ discontented with the people she/ he interacts with”, with an appreciable increase in sensitivity (almost three quarters of those with LUTD had this PF), but also with a sizeable decrease in specificity (almost one third of all the patients had this PF), nevertheless maintaining a sound SSnce. This joint PF seems to be the key PF for p-LUTS.

For any other PF the results were NSS, with the exception of a few PFs for which they were RSS. Those PFs, although not essential for our conclusions, may be helpful in pointing out which attitudes of the people they are interacting with make the p-LUTS discontent: many of them seem to have an acute sense of justice, being annoyed when not being offered what they consider to be

their right. One of the reactions they may have in these circumstances is of indignation and revolt (those deeming this a not very helpful piece of information should consider that although indignation is a rather obvious response to injustice, there are still others, such as complacency, anger or fear, which our analysis has not revealed as characteristic for the p-LUTS; actually indignation is a kind of anger). Besides, compared with the average patient, the p-LUTS tend to be rather susceptible and easily hurt by minor occurrences and to feel (unjustly) accused, disrespected, debased, offended, humiliated, or reprimanded.

We may conjecture that the main interest of the p-LUTS is the interaction with others, especially the way they are treated in their relationships with other people. They are rather keen about what they believe they deserve (is their right to receive). They are annoyed when not treated equitably or when their rights are violated. It seems that this sense of fairness and equity applies to all their relationships, with little respect to the degree of emotional involvement. So their concern is probably not about issues such as sex, hierarchy (domination/ subordination), affection or communication (which we might expect to prevail in their relationships with partners, colleagues, neighbors, friends, relatives), but about being treated fairly.

The most important issue is whether these LUPFs are a risk factor for or a mere concomitant of the LUTD. One way to clarify it would be a prospective study following for several years two separate groups: with and without these LUPFs. The drawback of such an approach is that the disturbing consequences of these PFs may not be apparent unless the patient has to put up with an annoying company for a long enough period. So a woman with strong LUPFs but with nice company may not develop LUTD, while another with less striking LUPFs but with a vexatious company may do so. Actually this is what I noticed in quite a few patients.

One way to obviate this would be to tackle the relationship issue of the p-LUTS. By specific interventions one might try to improve the way they interact with the people around them and see whether this approach diminishes the rate of recurrence of the LUTD (a control group – in which no psychological support is provided – is needed). This approach may even improve the way the patient perceives her/ his disease. The typical patient has resentments toward her/ his disease, regarding it as an undeserved, unjust occurrence that should be suppressed as quickly as possible.

More so, these hard feelings may add to the already existing resentments against the people galling her/him. In a more constructive approach, the patient should regard her/his symptoms as a signal drawing her/his attention upon her/his main psychological problem. The patient's attitude toward her/his disorder should shift from a hostile, destructive one to a friendly, constructive one. Actually, she/he should understand that the disease is not something different from her/himself, but an intrinsic part of her/his being, revealing which is her/his most sensitive point, which is her/his main area of concern, where is she/he vulnerable, and therefore where she/he should focus her/his attention in order to improve her/his psychological adjustment to the environment. Any time her/his symptoms

recur she/he should analyze the recent events she/he went through (especially those pertaining to her/his interaction with other people), aiming to unravel the precise circumstances that might have triggered her/his ailments.

CONCLUSIONS

A key PF for the patients with LUTD might be: "Discontented/ in conflict with the people she/he interacts with". It is yet unclear whether this PF is an accompanying or a predisposing feature for the LUTD. Further studies are necessary in order to establish whether interventions addressing this psychological issue could decrease the recurrence rate of the LUTD.

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