Thus, these studies may have broad implications for research and treatment of schizophrenia. The most recent well-known effectiveness studies have yielded unexpected results and limited mutual agreement (2–5). There is one feature they have in common: they pay very little or no attention to the patients' family environment. If that environment has effects that interact with the effects of drugs, it is possible that it has confounded all of these studies. This factor, which has not been accounted for, may have contributed to the discordant results. If the importance of the family environment for the outcome of psychopharmacological interventions is confirmed in the currently running ITAREPS study, the implication for future psychopharmacological trials of schizophrenia is clear: patient's family environment should be considered a potential predictor of treatment outcome and this should be reflected in study design.

Disclosure

None.

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EDITORIAL

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A medical student perspective on interstitial cystitis: a view from the womb

Linked Comment: Forrest *et al*. *Int J Clin Pract* 2008; 62: 1926–34.

It is my opinion that a proper editorial should start with an introduction. After all, you do not know who I am or why I should be writing an editorial for an article on the diagnosis and management of interstitial cystitis (IC). Further, if I told you I am a fourth year medical student, skepticism may instantly overwhelm your senses causing you to errantly flip to the next page or, worse yet, cast this journal aside. I will admit, at my level of training I know only a little bit about a whole lot of things, and not much about any one thing, with only a few exceptions. One such exception is IC.

You see, I am one of those students who took a year off between completing my undergraduate coursework and starting medical school intending to get married, goof off and play golf. In retrospect, I guess one out of three is not too bad. I did get married, but found the rest of my time completely engulfed in a sea of IC research. For just over a year, I lived and breathed IC daily; vigorously studying the existing literature, compiling the results of studies performed in a primary care office, presenting abstracts at the American Urological Association national meeting, and publishing quite a few articles including some reviews similar to this one. It was during this time I learned that, the disease state once thought to be exceptionally rare in general practice, is actually quite common (1,2). I also learned that the key to optimal patient outcomes at that time, as reiterated within this current article by Forrest and Moldwin, is early diagnosis and treatment (3,4). Just like diabetes, if you catch it early your odds of bringing about meaningful results/change are significantly improved.

'Interstitial cystitis…isn't that some type of lung disease?'

From this perspective, I entered medical school expecting to find the diagnosis and management of IC nestled alongside instruction given on other 'bread and butter' medical ailments such as diabetes, hypertension or urinary tract infection. To my surprise, it was barely mentioned! The truth is, if IC was mentioned at all during our brief urology lecture series it was undoubtedly less than memorable. I sincerely hope I would have remembered a topic so

germane given my past research experience. In fact, for me to have merely missed the topic would be like failing to notice an elephant sitting in my living room, it just would not happen. There are some of you who are thinking, 'I bet he was too busy making up for lost time, goofing off and playing golf during medical school instead of paying attention during lecture'. To this I must simply reply, 'I wish'.

Knowing what I know about IC and paying a hefty chunk of change to attend medical school, I wondered if my education was lacking in comparison to other fourth year students attending different medical schools. To pacify my suspicion, I polled a few of them on their familiarity with IC. The response I would most often receive was, 'Interstitial cystitis…isn't that some type of lung disease?' It seems this deficiency is not so unique after all. Presently, I cannot help but wonder whether my colleagues, upon being birthed into the world of medicine in less than a year, will miss the diagnosis of IC simply out of ignorance. Quite a scary consideration, isn't it? Unfortunately this scenario is far too probable.

It seems enigmatic for such a gap to exist in our medical education. Here, we have some of the great minds in medicine, Forrest and Moldwin, leaders in their field, writing fantastic summaries of how to recognise and manage IC yet very few teaching this doctrine in the classrooms. While it is undoubtedly important to help inform the practicing physician, as may be the scope of such review articles, to halt educational efforts at this level would be extremely shortsighted. The authors clearly point out that, 'a careful history and thorough physical examination…are key in distinguishing IC from other disorders with similar symptoms'. (4) Jackpot! Medical students become veritable H&P machines by the end of their training. I tell you, the opportunity exists to tutor us, in our infancy, how to recognise the symptom complex of IC. After all, taking thorough histories and synthesising complaints into working differential diagnoses is what we are trained to do. It should not be a difficult task to teach us one more set of symptoms to look out for. To the leaders in the realm of IC I ask, if you do not train soldiers to recognise the enemy prior to being deployed into battle, how do you expect them to succeed? How are we to thwart our adversary if we do not even know what it looks like? Well-equipped students may be the key to winning this war.

While teaching students to recognise the IC symptom complex seems a likely and somewhat reasonable solution, I cannot help but wonder if this deficiency in medical education is not even more deep-seated and rudimentary in nature. Could it be that we have not sufficiently learned how to diagnose 'abnormals' like IC because we do not know enough about urological 'normals'? Knowledge of normal blood pressure is essential to diagnosing hypertension, as is normal blood glucose to diabetes. These are facts which should be inherently engrained into the minds of graduating medical students. I wonder how many fourth year students know the average bladder capacity, rate of urine production and thus normal number of voids per day. How many of us know that dyspareunia is actually abnormal and that IC should be considered high in its differential, as well as in that of chronic pelvic pain? I would hope that the majority of graduating medical students could answer these questions correctly, but time seems to argue otherwise.

Since I and my colleagues published similar reviews nearly 4 years ago, apparently not much has changed in the realm of IC. Forrest and Moldwin, as well as others, clearly and continually point out that the key to improved treatment outcomes in patients with IC seems to be early recognition and therapeutic intervention with an emphasis on close follow-up, education and support (3,4). Why then, has this widely accepted paradigm not yet filtered down into the realm of universal medical education? If early diagnosis and treatment of IC are tantamount to optimal patient outcomes, why aren't we teaching medical students how to recognise its symptom complex? As long as medical educators fail to stress the importance and prevalence of IC in the general population, students will continue to advance through their graduate medical training, be deployed onto the front lines of our nation's medical fields, and millions of patients with IC will continue to suffer needlessly mis- and/or undiagnosed. While continuing to educate practicing physicians via review articles is admirable and necessary, it is simply not enough. It is up to the leaders in the world of IC to teach infant medical students, while still in the womb, at very least how to recognise this disease state. The key to winning the war on IC may lie in first readdressing the foundational knowledge of urologic normalcy.

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