

Adult and adolescent pertussis should not be underestimated!

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Pertussis is an acute respiratory infectious disease that infects people of all age groups, most commonly infants and children.¹ Like many other countries, childhood vaccination with DTP has dramatically reduced the burden of these infections in infants and children in Pakistan. *Bordetella pertussis* (aetiological agent of pertussis) can also cause infections in adolescents and adults, to which many physician are unaware. The immunity conferred by the DTP vaccine wanes with the passage of time (usually after 7-8 years). As a result adolescent and adult groups are susceptible to these infections. However, *B pertussis* infections in adults largely remain atypical.²

The clinical manifestations of *B pertussis* infections in adults remain different than the one in infants and children. There have been reports of association between persistent cough in adults and the *B pertussis* infections from different regions of the world.^{1,2} The adults are not only a source of infection for other adults but serve as a reservoir for infants and children who may develop severe infections.¹⁻³ Adult pertussis manifested as persistent cough can have a duration of 36-48 days.³ Moreover, mass

vaccination with the DTP vaccine had led to the development of atypical pertussis which is difficult to be diagnosed as whooping cough, resulting in the underestimation of the burden of these infections.^{3,4}

The overall impression of Pertussis as a disease of children must be changed, as pertussis has been found to be a disease of all age groups in reports from many parts of the world and adult vaccination of the age groups at risk is being recommended. As recent out breaks of this disease has confirmed the role of *B pertussis* in adult infections, vaccination of adults and health care workers with DTP to protect the infants and children is under debate.

In Pakistan, like many other countries of the world, pertussis still remains an underestimated disease. In our recent survey carried out in different areas of Pakistan it was found that 82% of the health care professionals including physicians (78%) were unaware of the fact that Pertussis can occur in adults or it can adopt a new form (atypical) with milder symptoms in vaccinated population. Although the incidence of this disease has been reduced largely after the introduction of DTP vaccine, this organism still continues to circulate in the country. The Seroepidemiology of *B pertussis* infections in adult population clearly showed a higher number of seropositive individuals (89%) which clearly indicates the exposure to this organism in adults and risk of transmission to children.⁴ The laboratory diagnosis of pertussis is mostly not practiced in Pakistan and clinical symptoms are the only way to identify the cases of it, thus making it underreported disease like in many other countries.^{5,6} Culture, Serology and Polymerase Chain Reaction (PCR) are the commonly used tests for laboratory diagnosis of *B pertussis* infections. PCR being more sensitive and less time consuming as compared to culture. To date there are very limited number of labs offering laboratory diagnosis of these infections in Pakistan.

Therefore, it is suggested to the physicians and paediatricians to get aware of the facts that pertussis must not be tagged as diseases of infants and children and it may adopt its

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atypical manifestation in the immunized and incompletely immunized individuals. Association of *B pertussis* or other *Bordetella* species (e.g. *B parapertussis*) with persistent cough in adults can only be confirmed by laboratory diagnosis. There is a need of establishing laboratory diagnosis facilities for this organism at large diagnostic lab and physicians should advise a laboratory diagnosis of the suspected cases.

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Deficiencies in original articles accepted for publication in Pakistan Journal of Medical Sciences: A retrospective analysis

I am, a medical editor from New Delhi, India. I run a journal at <http://geradts.com/anil/ij/indexpapers.html>. I have read your paper¹ at <http://www.pjms.com.pk/issues/janmar09/article/editorial1.html> It is excellent. I want to congratulate you for that. As a medical editor, I know these are the problems.

Do consider submitting some editorial to our journal too, on this subject.

REFERENCE

1. Jawaid SA, Jawaid M, Jafary MH. Deficiencies in original articles accepted for publication in Pakistan Journal of Medical Sciences: A retrospective analysis. Pak J Med Sci 2009;25(1):1-6.

Anil Aggrawal
India.

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DENIAL ATTITUDE AMONGST PATIENTS: THE FACELESS AND DARK SIDE OF THE MOON

Younis A. M. Skaik

Notwithstanding the respect of autonomy is a vital ethical and legal issue in medicine, however, it is risky and costly to eclipse the truth (denial attitude) from the patient's side. Deny a sign of a certain disease; while the patient has, when the patient is bombarded with number of questions from the physician is called denial attitude. Denial attitude can be found among patients with different educational levels; however, it is most common amongst those who have a repository of medical information including signs and symptoms of different diseases.

The major cause of foray of denial attitude syndrome among patients is the endless and boundless fear of being diseased. A very recent shining example of denial attitude is the ongoing denial of the signs and symptoms of swine flue, and looking for other reasons of getting the symptoms and signs (e.g., fever, diarrhea and vomiting). A sample of detailed causes with examples of denial attitudes amongst patients is illustrated in Table-I. The table is not hype of denial attitudes; it gives hopes "recommendations" to patients as discussed later.

Discussion

Diagnosis of diseases is a Herculean task. Every physician has three useful diagnostic tools; patient history (e.g., asking the patient a dozens of questions), physical examination and finally laboratory investigations including X-ray and others. A five star physician depends some-

Table-I: Categories of denial attitudes

No.	Category	Description
1	Fear of disease	A 45 year old male denied the signs of diabetes mellitus (e.g., polyuria, polyphagia, weight loss and polydipsia), while his FBG, 2 HPP and OGTT showed he is a diabetic. He admitted later of the signs.
2	Fear of embarrassment	A 25 year old male had a Hb level of 11.7 g/dL. At times, he had a headache and a high breath rate during minor efforts. He got an oral iron therapy with no response. He admitted later that he has a family history of thalassemia trait. Laboratory tests confirmed that he has a thalassemia trait.
3	Shyness	A 28 year old male went to the GP clinic for the physical examination and confirmation of hemorrhoids, the physician was female. He was so shy; hence, he denied all the signs of hemorrhoids (e.g., a bloody stool and pain during defecation). He succeeded to escape from the physical examination and lead the physician to a final diagnosis of constipation.
4	Fear of work loss	A 37 year old female had a breast nodules with pain. She covered this truth and only told the physician that she needs an antibiotic for an axillary's abscess.
5	Fear of death	A 55 year old female had a dark bloody stool, very painful abdominal cramps and weight loss. All these signs were denied and hid, because the patient was afraid of colon cancer and hence the death, especially she had a family history of colorectal cancer. Every thing transpired later during colonoscopy and the laboratory investigations and the patient admitted of the signs.
6	Fear of >2of the above	A 30 year old male did mask that he has an intermittent colic cramps as he didn't want to hear he is diseased and because he is still young, he was embarrassed and shield.

what on the first two tools and leaving the laboratory investigation the last resort. This is because laboratory investigations have a limited diagnostic and analytical sensitivity and specificity. Coupled with the probability of clerical errors and the highs and lows of different reagents. Hence, the first tool is an important hub in the diagnosis and treatment of diseases.

Questions directed from the physicians towards patients should be taken seriously and answered clearly without eclipsing the truth and hence mislead the physician's conclusion.

Recommendations

Patients should keep in mind the following:

1. What can't be cured (denial attitude) should be endured.
2. The only bright side of the denial attitude is the physician's words which make the patient feel happy "you are okay, free of disease".
3. The dark and faceless side of the denial attitude is the serious complications and consequences of truth eclipsing which may lead in some cases to death.
4. Hiding of one sign could be very costly to the patient.
5. The tragedy of life is not the ultimate fate or death but the hidden and eclipsed resources within us, use it or you will lose it. Even if you are diseased you have the resources.
6. All categories in Table-I adds against the patient. Each type can be treated very easily and has a medical treatment which of course more safely than hiding the truth.
7. The patient should build a special tight junctions and desmosomes with the physician.
8. Choosing life, choosing death in medicine can be found amongst Jehovah Witness groups in developing countries, who refused wither blood donation or blood transfusion. But this tyranny of autonomy is not from our religion Islam.

Finally, I would suggest to physicians to ask the patients a very well structured questions asking different formula of questions but looking for a clear and direct answer about specific issue. This type of questions will reveal the truth.

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Asymptomatic coronary artery disease in Type-2 diabetes

This is with reference to article mentioned above published in Pakistan Journal of Medical Sciences which is a nice attempt by the authors.¹ There is, however, a statistical mistake, and I would like you to please rectify the same in next issue.

On Page No. 555 of the article (5th page of the article), second paragraph, sensitivity is calculated / cited as 70%. With the data given / elaborated in the article, sensitivity of Stress Thallium / Stress ECG cannot be calculated. This is only Positive Predictive value with reference to Angiographic findings (as Gold Standard). I think this is very important to clarify.

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1. Ahmed SSF, Othman S, Meo SA. Asymptomatic coronary artery disease in Type-2 diabetes. Pak J Med Sci 2009;25(4):551-556.

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Response from the authors

I am grateful to the valuable reader and a colleague and would like to thank him for correcting me. The sensitivity is calculated by true positives divided by true positives plus false negatives. The false negatives are those who have normal test and found to have disease on angiography. As in our study we did not perform angiography in those who had normal scan therefore sensitivity can not be calculated. Therefore it is better to use positive predictive value rather than sensitivity. I agree with the correction by worthy colleague. Hence, the paragraph on page 555 may please be read as "positive predictive value of 70% rather than sensitivity".

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Editor's Note: The correction has been made in the Online Edition on the net.

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