

### “Retrospective” or “Descriptive” study?

*To the Editor*

I read with interest the paper published in the September 2006 issue of the Saudi Medical Journal.<sup>1</sup> Authors, in this article, have reported a very short clinical and demographic profile and some risk factors of HIV positive subjects in one of the Iranian Southern provinces, Sistan and Balouchestan. Article indicates that it is a retrospective study on 52 HIV-infected patients admitted in a teaching hospital in the provincial capital of Zahedan, Iran for evaluation and management of the HIV-related disorders. The study based on the clinical and demographic features of patients recorded in the hospital during 2000 and 2005.

“Retrospective” is a term usually referred to the case-control studies where a group of patients are compared to a (matched) group of control subjects in terms of influencing or etiologic factors.<sup>2</sup> I do not agree with the authors that this is a retrospective design. The current study is a descriptive study on 52 positive cases of HIV infection to look for the frequency of some opportunistic infections in this group of patients only. We are not able, in descriptive studies, to explore the role of risk factors on the occurrence of a disease. To do so, there must be an appropriate control group while this study does not have it. Advanced statistical models must also be applied for such etiologic inference while this study did not do so.

In practice, there is no clear-cut distinction between different types of “Study Design” in bio-medical researches. However, for evaluation of etiologic and influencing role of some factors (such as risk factors) on the occurrence of diseases, we necessarily need to have a proper control group. Otherwise, no inferential decision can be made on the influencing role of risk factors.

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### *Reply from the Author*

Thank you for the opportunity to respond to Dr. Saeed Dastgiri comments regarding the published article

Spectrum of clinical disease in a series of hospitalized HIV-infected patients from southeast of Iran.<sup>1</sup> It is very clear that a retrospective study is a study that looks backwards in time. For example, we find people that are already dead and try to figure out why they died. Herein, we evaluated the patients with HIV/AIDS that were already admitted and tried to find why they were admitted. Also, When we are studying a disease that takes a long time to appear, we usually need to use a retrospective study. The classic example is a study of smoking and lung cancer. We could find people as they start smoking and watch them from that point onward. This has been carried out, but it takes a couple of decades for the smoke to produce a tumor large enough to be noticed. Most studies look backwards in time, by selecting patients who have lung cancer and asking how much they smoked. On the otherhand, it is a study that compares 2 groups of people: those with the disease or condition under study (cases) and a very similar group of people who do not have the disease or condition (controls). Researchers study the medical and lifestyle histories of the people in each group to learn what factors may be associated with the disease or condition. For example, one group may have been exposed to a particular substance that the other was not. I agree with Dr. Dastgiri, our study is a descriptive study but we evaluated the patients with HIV/AIDS that were already admitted and tried to find why they were admitted. In fact, our study was carried out using existed data. I would like to thank Dr. Dastgiri for good attention.

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### References

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