Clinical features versus laboratory values. An infant with transient neonatal hypothyroidism.

Sir,

A 2-month-old male infant was referred to the high-risk neonatal follow up clinic from the general pediatric clinic for further evaluation for his unusual inactivity. The parents gave the history that the infant was sleeping excessively and that he had staring eyes. The birth history and postnatal period was unremarkable. On examination the infant was noted to have wide anterior fontanelle, macroglossia and umbilical hernia. Severe head lag was noted. The rest of the physical examination was normal. In view of his clinical features, thyroid function tests (TFT) were carried out which were within the normal reference ranges of our laboratory (Table 1). However, the infant was started on oral thyroxine supplementation (50 µg daily dose). On the follow up visit after 2 months, he was noted to have normal appearance with good head control, no macroglossia and normal anterior fontanelle. His repeat TFTs showed a very low TSH (<0.30 miu/L), suggesting suppression response to the negative feedback of supplemented thyroxine. Thyroxine was discontinued and he was managed clinically. On his next visit, 3 months later, he was noted to have normal growth and development. His repeat TFTs were within normal limits (TSH has risen up from <0.30 to 2.90 miu/L, Table 1).

Transient neonatal hypothyroidism is a well known entity. The causes can be environmental (iodine deficiency), maternal (immunological, drugs, antithyroid iodine disinfectant) or neonatal (use of contrast media, iodine disinfectant).\(^2\) The incidence reported from Europe ranged from 1 in 700 to 1 in 8400.\(^3,4\)

As the case was overlooked at birth, it pointed out towards the need for a neonatal screening program for hypothyroidism.\(^5\) The case highlighted on the role of good clinical examination. Infant had most of the signs of congenital hypothyroidism (macroglossia, wide anterior fontanella, umbilical hernia, head lag). The decision of starting thyroxine was based on the clinical findings, as laboratory values of TSH and T4 were normal (Table 1). Infant improved dramatically on oral supplementation. The very low TSH (assistance from the laboratory) on the follow up visit lead to the stoppage of supplementation. Infant remained stable with good growth and development and with normal TFTs.

In summary, a good clinical assessment and appropriate laboratory assistance go hand in hand. The infant was started on medication based on clinical features while it was stopped based on laboratory values. A fine interpretation of clinical signs and laboratory values with early treatment remains the mainstay of management of transient neonatal hypothyroidism. However, the need for neonatal screening program should not be overlooked.

\(\text{Table 1} \cdot \text{Summary of the findings.}\)

<table>
<thead>
<tr>
<th>Thyroid function test</th>
<th>TSH (0.32-5.00 miu/L)</th>
<th>T4 (9.2-23.9 pmol/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 2 months of age</td>
<td>1.9</td>
<td>15.3</td>
</tr>
<tr>
<td>Thyroxine supplementation started</td>
<td>&lt;0.03</td>
<td>18.9</td>
</tr>
<tr>
<td>At 4 months of age</td>
<td>2.90</td>
<td>13.3</td>
</tr>
<tr>
<td>Thyroxine supplementation stopped</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

References


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Aetiology of community acquired pneumonia: fashionable or familiar

Sir,

Q fever, due to *Coxiella burnettii*, is thought to be widespread in the Kingdom, not surprisingly in view of the large numbers of sheep; although other sheep-rearing countries such as New Zealand are Q fever free.\(^1\) A recent local pilot study on 75 military blood donors aged between 18 and 40 using the indirect fluorescent antibody test (the current serological gold standard) revealed a Q fever positivity rate of almost 30%. Comparable rates in blood donors from non-endemic areas of the world range from 0.6-6.1%.\(^2-4\)

Thus, Q fever infection is clearly common in our area.

When Q fever assumes the pneumonic form it is generally classified among the 'atypical' pneumonias together with the other agents of community acquired pneumonia such as *Mycoplasma pneumoniae*, and *Legionella pneumophila*.\(^5\) Of these, *Chlamydia pneumoniae* has gained recent notoriety\(^6\) and has several features in common with *Coxiella burnettii*. Both diseases are holoendemic and according to immuno-serologic data peak in childhood and adolescence.\(^7,8\) Both cause respiratory infections ranging from asymptomatic to community acquired pneumonia. In both infections the diagnosis is largely serologic. While it would be odd if *C. pneumoniae* infection were absent from the Kingdom, we have no firm epidemiologic data to indicate that it is prevalent.

Is it not strange then, that in the etiologic work-up of community acquired pneumonia, less attention is often devoted to the familiar and ubiquitous *C. burnettii* than to the fashionable, trendier *C. pneumoniae*? In our own hospital requests for serodiagnostic tests for Q fever are extremely rare but those for *C. pneumoniae* feature prominently in the investigation of community acquired pneumonia.\(^9\) If we are to accurately identify the etiologic agents of a ‘atypical’ community acquired pneumonia in our area we must not ignore Q fever. Only by including it in the diagnostic panel of tests will we be able to assign it its rightful place amongst the various candidate agents for the disease in our region.

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References

Primary malignant lymphoma of bone

Sir,

I read with interest the article “Primary malignant lymphoma of bone” by Dr. Qidwai and Dr. Khattak. The authors should be complimented for successfully conveying the message to the physicians through their article to keep the possibility of this rare malignant bone tumor in the differential diagnosis of osteolytic lesion. Hereby, I would like to elaborate some important points of this tumor.

Lymphoma of bone (previously called reticulum cell sarcoma of bone) accounts for only 5% of the primary bone tumors. In general, lymphoma presenting in the bone is a sign of disseminated (stage IV) disease; occasionally, it may be a true solitary lesion, defined as “involvement of single extralymphatic organ or site (stage IE).” It has been emphasized that all patients with a presumed solitary lymphoma of bone should undergo a thorough evaluation for other involvement, because 50% of the so-called solitary lesions are associated with disease elsewhere. The following criteria must be met to establish the diagnosis of primary lymphoma of bone: 1. Only a single bone is initially affected. 2. There is unequivocal histopathological evidence of lymphoma of the bone lesion and 3. There is metastasis to only the regional areas on presentation, or the primary tumor precedes the metastasis by at least 6 months. These criteria still hold valid since Cooley developed them in 1950.

Establishment of prompt and early diagnosis is of paramount importance for treatment and prognosis point of view. Primary lymphomas are potentially curable, whereas lymphomas involving bone secondarily usually have been fatal. With treatment, a primary malignant lymphoma of bone is associated with a much better 5 year survival rate (50%) than is systemic non-Hodgkin’s lymphoma (20%). This emphasizes the importance of thorough evaluation of the patient and staging of the tumor.

Treatment is based on extent of disease. Stage IE lesions have traditionally been treated with radiotherapy (reported cure rate 90%). Systemic chemotherapy is recommended if disseminated disease is present either initially or during follow-up of an initially primary lesion. There is no role of curettage and filling the defect with either cement or bone graft. The role of surgery is limited to obtaining adequate tissue for diagnosis and treatment of pathological fracture.

Lymphoma of bone can occur at any age and in any bone. It can have nonspecific clinical and conventional radiographic features, which may mimic inflammatory, neuropathic, infectious, or other neoplastic conditions of the extremities. Therefore, it is recommended that its diagnosis should be considered in the differential diagnosis of any patient with a bone lesion or persistent bone pain in spite of the rarity of this lesion.

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Reply from the Author

Authors are thankful to Dr. Suresh K. Dargan for his interest to read our article and for valuable additions to this important subject. He has rightly highlighted the need to make an early diagnosis of this rare tumor, keeping a high index of suspicion while evaluating the lytic lesions of bone. This is the real message of the article.

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References

Hysterectomy - A female gynecologist’s perspective.

Sir,

A female gynecologist’s perspective by Al-Nuaim,1 provoked certain reflections in me about the relevance of hysterectomy in benign uterine lesions in the gynecological practice in Southern India (SI). Common indications in SI are dysfunctional uterine bleeding (DUB), myoma uterus, adenomyosis and certain lesions of the cervix such as cervical intraepithelial neoplasia (CIN).

While the necessity for hysterectomy may be disputed in small and asymptomatic myoma, there is no question about removal of the uterus in symptomatic or large myomata - conservative treatment with progestin or gonadotropin releasing hormone (GnRH) agonists have been found useful only as a preoperative measure to reduce vascularity and size of the myoma to facilitate surgery. This is not a substitute for hysterectomy. Myomectomy in SI is only resorted to if child-bearing is desired, preferably in the below 40 age group, where the only cause of infertility, primary or secondary is the presence of myoma.2 Except in experienced hands, myomectomy carries a high incidence of operative hemorrhage and morbidity. There is the possibility of recurrence in 50% of patients, requiring a second stage surgery.

Often myomata are associated with DUB even after myomectomy, menorrhagia continues to plague many a patient. In a country like India, the majority of women who attend the Medical College hospitals cannot afford repeated surgical procedures.

Medical therapy in DUB in peri-menopausal and post-menopausal women can be given a trial.3 In my experience, I have found that hormones, non-steroidal anti inflammatory drugs (NSAID), antifibrinolytic agents give temporary relief. Most women in South India tend to have recurrence on stopping the drugs. In the obese, diabetic and hypertensive woman in the peri-menopausal age group, when the endometrial histology reveals hyperplasia, particularly adenomatous or atypical hyperplasia, I insist on a hysterectomy. In an analysis of hysterectomy in the teaching college hospital at Madurai, South India, 22% of hysterectomies for non-malignant causes were for DUB, 88% of these patients had a vaginal hysterectomy. The morbidity was low and the mortality nil. I have no personal experience with endometrial ablation by cryosurgery or laser vaporization. It appears that in skilled hands, endometrial resection can be an elegant and effective technique in patients near menopause in the absence of hormonal dysfunction.

Obstetric hysterectomy is carried out as a life saving emergency procedure. Rupture uterus is still not uncommon. Septic abortion with or without bladder or bowel injury, atomic post partum hemorrhage and occasionally a molar pregnancy and concealed accidental hemorrhage are other indications for obstetric hysterectomies.

The uterus and breast are irrevocably associated with sex and reproduction. Any operative procedure on these organs is associated with some psychological disturbances, however mild. There should be no embarrassment in a frank discussion about sex preoperatively. Sexual desire is not altered after hysterectomy. Indeed it may improve subsequently since she is free of fear of pregnancy. Till date, the uterus has not been associated with any essential hormonal function. Loss of menstrual function can actually be a blessing since her general health improves in the absence of hemorrhages, discomfort and pain of menstruation.

Every woman about to undergo a hysterectomy should have counselling sessions with her gynecologist. If the operation promises essential advantages and improve the quality of life, she must be advised on all relevant facts about the procedure. In South India, the “cultural attachment” to the uterus is not high and rejection by the husband is unusual. In my 45 years of experience in gynecology, I am not surprised that many women in their early thirties with myomata and DUB or both request hysterectomy if they have completed their family.

When a famous mountaineer was asked why he wanted to climb Mount Everest, he replied “because it is there” but experienced gynecologists do not remove the uterus “just because it is there” without a valid reason.

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Reply from the Author

I suspect that Dr Logambal has failed to recognize that the article was intended as a personal view rather than a large study. I still state that women with uterine disorders now have more choices than ever before, aggressive or minimally invasive surgery, hormonal manipulation, laser ablation and so on. I am concerned that Dr Logambal appears to have overlooked this. It is no longer acceptable simply to offer a choice of abdominal or vaginal hysterectomy.
to the patient with abdominal uterine bleeding for any reason except cancer.

Let me remind Dr. Logambal that there are exciting new techniques in laparoscopic surgery and advances in reproductive endocrinology, which give the gynecologist more options when deciding on treatment plans.

I deliberately submitted this paper as my own view and I am careful not to draw any firm conclusions but rather simply to describe some interesting observations from the surroundings.

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References


Drug Addiction

Sir,

I have read very carefully an excellent article by Dr. Bahaa A. Abalkhail, regarding characteristics, nutritional and health status of addicts hospitalized for detoxification. However, I would like to highlight some relevant points: 1. We have reported the sociodemographic variables of patients with dual diagnosis and made certain recommendations including to further study the comorbidity of patients with drug abuse. We have also reported iatrogenic trihexyphenidyl dependence in psychiatric population. We have collected the relevant data for analysis of more than 500 patients with addictions who were admitted in Al-Qassim Psychiatric Rehabilitation Center, the fourth center recently established exclusively for the treatment of patients with addiction. It remained intriguing why this center was not named as Al-Amal Hospital. Unlike this center, Al-Amal Hospitals due to extensive media campaign are known all over the Kingdom as the centers of hope not only for patients with drug addictions but also for their lovely families. 2. The statement “drug addiction problem is still in its infancy in the Kingdom of Saudi Arabia” is not supported by any scientific evidence. Moreover, in this context the lack of epidemiological addictive researches does not confer that the problems of drug addiction are not existing. However, long clinical experience of working in a general psychiatric hospital before and after the establishment of the aforesaid facility guides that addicted patients consulting it probably represent a tip of the iceberg. This may be applicable to 3 Al-Amal Hospitals as well. In fact, the problem of drug abuse and addiction in the community appears to be enormous and largely hidden and until now we have not explored it. In this context, we must learn a lesson from history and the epidemiological researches on drug abuse and addiction conducted in other parts of the world. 3. Finally, beside other limitations of this study, the recommendations and conclusions such as to identify the determinants of drug addiction are not compatible with the design of this research.

In conclusion, drug addiction is a major health problem and now considered as a chronic, relapsing brain disease and therefore, all relevant addictive researches should be encouraged in the Kingdom of Saudi Arabia.

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Drug Addiction

Reply from the Author

I would like to thank Dr. Qureshi for his comments on our article titled “Characteristics, nutritional and health status of addicts hospitalized for detoxification”. For the first issue, I would like to point out that our study was performed on patients hospitalized in one of Al-Amal Hospitals, which explains why we exclusively spoke of these medical settings. Al-Amal Hospital in Jeddah, the site of our study, was established in September 1991 and is well known for its potent integrated prevention, detoxification and post-detoxification program. Its efforts and effective role in management of drug addicts is well recognized. We are sure that the
recently established Al-Qassim Psychiatric Rehabilitation Center is performing comparable and recognized efforts.

Secondly, we agree that drug addiction is a major health problem but there is no scientific evidence that proves that it is an enormous problem in the Kingdom. However, working in a specialized place and receiving only patients for addiction status, makes judgement biased and over-estimated.

Finally, we would have appreciated, if Dr Qureshi had mentioned the limitations that he observed in our study. Moreover, our recommendations concerning the necessity of more research, to identify determinants of drug addiction and evaluate the detoxification therapy, are drawn from our results that have shown that the problem exists in the community. Also, our study has shown the socio-economic burden of drug addiction on the society in the form of unemployment, cost of therapy, divorce spread of smoking habits and alcohol consumption especially among the productive age group. It has also shown the health impact of drug addiction including altered nutritional status, spread of infectious diseases (hepatitis B, hepatitis C and tuberculosis) and increased number of relapses. These results have urged us to look for better understanding of the problem in our community. More research, to identify the determinants of drug addiction specific to our society and evaluate the detoxification therapy, is the effective route to prevent the spread of this phenomenon and minimize the number of relapses. We were very much astonished that Dr Qureshi disagreed on this point, especially, that he finds the problem of addiction enormous in our community and ended his letter recommending the encouragement of all relevant addictive research in the Kingdom.

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References
5. Leshner AI. Addiction is a brain disease and it matters. Science 1997; 278: 45-47.
Diseases of the Elderly


The percentage of the elderly people in the developed countries is increasing which is a reflection of better health care and nutrition. The WHO has given projection for life expectancy at birth from 1950 to 2025 and it showed that in 1950 about 12% of the population who aged 60 and over and by the year 2025 the figure would rise to 24% with more of them above 75 years old.

Longevity is associated with increasing risk of suffering from diseases which increase in incidence with advancing years like osteoporosis, osteoarthritis, ischemic heart disease, CVA, dementia and cancers. This throws an increasing burden on health care services. For the majority of these chronic illnesses drug management constitute an important aspect of managements. Therefore, there is a growing demand on the pharmaceutical companies to improve and develop new drugs and to spend more money in research to meet this.

This book is one of the financial times pharmaceutical and health care publishing report written by Paul Evers, market research consultant and writer. It contains 145 pages and 8 chapters and as the title indicates the book deals with the common desires of the elderly with the special concentration on their current drug therapy, their companies with reference to the sales market and the research and development in the field.

In chapter one the nature of aging process, theories about aging with references to environmental factors, genetic basis, programmed cell death, immune response to aging, the role of oxidation and energy metabolism, the relation between aging and diet and between aging and cancer were briefly discussed.

Chapter 2 to 7 dealt with the most common diseases affecting the elderly like osteoporosis, osteoarthritis, congestive cardiac failure, myocardiac infarction, CVA’s depression, diabetes mellitus and cancers, their prevalence, incidence and presentations were described very briefly.

The author concentrates on the current drugs therapy for the above mentioned illness, their companies, the sales with special emphasis in the areas of research and development made by the pharmaceutical companies to provide new drugs which are more effective especially in the dementia, DM and cancer therapy. He showed that more research and more money is spent by these pharmaceutical companies in areas like dementia and cancer therapy with some promising results like vaccine therapy, gene therapy, monoclonal antibody therapy for cancer.

In the last chapter of the book the author listed the names of the main 15 pharmaceutical companies, their locations, their leading products and their research and development profile.

In conclusion, the book summarizes the effort made by some pharmaceutical companies in the areas of research and development to meet the demand of drug therapy for the growing population of elderly people.

It is a good book to read, to acknowledge the current drugs therapy for the common illnesses of the elderly and the research and development in this area and of course it is a good buy.

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Oral Health: Diet and other Factors


This book starts with structure of the mouth discussing anatomy and tooth formation with the need of Calcium and Phosphate for enamel formation, going into details of oral microflora with different species explaining the growth and acquisition of bacteria in the oral cavity. It also reviews the food components in general focusing on those related to oral health and I found this section is very important as it is showing in detail with explanation, the dietary factors affecting oral health with the view of Macro Nutrients and Micro Nutrients, their sources, deficiencies & overdose. Dental Caries Etiology and Pathogenesis: in this section, it discusses the dietary sugar as a need for bacteria to produce acid via glycolytic sequence of linked enzyme reactions showing different types of caries affected by a dietary factor or other different sources of dental caries. This is an issue of interest to discuss the characteristics of foods, which may modulate the caries attack. It also gives an idea about the epidemiology in the UK stating that regular use of fluoride tooth-paste and reduction nationally in
Sucrose consumption during the last quarter of century has declined the dental caries.

The book also shows that nutrition influence during tooth development play little if any part in the susceptibility to dental caries in UK comparing to the intake of fluoride which increases the resistance to caries. In general, it is obvious that evidence establishing sugar as an etiological factor in dental caries is overwhelming. Also the consumption of candies and sugar containing beverages were significant risk factors for the development of caries. In relation to antioxidants, this book has shown that vitamin C is essential for the hydroxylation of proline in the synthesis of collagen and an important component of the alveolar bone matrix and of blood vessel walls. Effect of vitamin E supplementation (800 and 300 mg/day) in reducing periodontal inflammation was significant.

It discusses the oral cancer and the role of diet and prevalence in relation to dietary habits. This book is very informative as it describes the role of diet in different age groups with different cultural backgrounds which would be very useful to dentists, dietitians, general health practitioners and community health and therefore I would like to recommend that this book is a valuable source of information.

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**Clinical Pathways in Nursing: A Guide to Managing Care from Hospital to Home**


This book is primarily a reference book designed to assist the health care professional in planning and developing clinical pathways.

Clinical pathways are a mechanism through which the multidisciplinary team can effect a collaborative approach to the delivery of care. It involves predicting the sequence of events and process that a patient will undergo in order to reach a desired goal. The mapping out of care in this fashion enables the health care professional to give specific care/intervention at a specific time. This increased control allows for a higher quality of care that is cost effective and more efficient.

This book teaches by example, with many examples of clinical pathways that could be adopted in their entirety or adapted to meet the specific health care needs of various patients groups.

This book is well written, informative, and easy to read and is directed at health care professionals practicing in the acute care and community settings. Although written for nurses by nurses, it gives excellent insight into the usefulness and potential development of clinical pathways, for the entire health care team.

**Overall, I would suggest that this book is useful and informative, and read by the right people will have a snow ball effect on the future development of clinical pathways for patients in Saudi Arabia.**

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**Molecular Biology**


The book “Molecular Biology in Reproductive Medicine” provides an updated and comprehensive analysis of the genetics involved in reproductive medicine. It is fully illustrated with numerous diagrams, tables, colored illustrations and photos. It contains 23 chapters divided in six sections, which cover the topics of molecular genetics, cell biology, hormone synthesis, action and signal transduction, gamete and embryo biology, clinical genetics and the genetics of adult reproductive dysfunction. Also, it includes numerous references from renowned journals.

**Overall this book is clearly written and pays attention to detail. The format is user friendly with sections divided in such a way that one could pick up the book from any point and find it useful and informative. It would be an excellent source of reference for anyone interested and involved in the
field of reproductive medicine. In particular it will be of importance for those individuals that are currently involved in the genetics of reproductive medicine. In my opinion the book is more geared towards specialists in this field (ie. obstetricians, gynecologists, reproductive endocrinologists, etc), medical and molecular geneticists and graduate students.

The book is definitely a good buy at 89.98$US. The sheer volume of material and data presented make this an excellent reference material. It provides an in-depth analysis on several subjects relevant to reproductive medicine.

I have only a few criticisms and I consider them to be minor. The amount of data actually shown regarding DNA and RNA studies is minimal and in respect to the RNA autoradiographs, I would have to say it is of very poor quality. As this is a molecular biology book with the emphasis on genetics, I would have expected to see more actual data. I think this helps to clarify and provide additional documentation that would enable the reader to understand more clearly the concepts involved. My only disappointment is with the first chapter, which briefly discusses molecular genetics. It has tried to discuss too many aspects and in consequence has made it rather vague. For anyone with a background in genetics this is not a problem but for those unfamiliar I think this will be a drawback. I would again stress that I consider these points to be minor.

In conclusion, I would highly recommend this book for the audience I have stated. I think they will find it an excellent source of reference and invaluable in delineating the current concepts of molecular biology in reproductive medicine. The authors are clearly well published and very well respected in their fields. This is itself gives the book an added credence. In addition, the price is very reasonable in regards to today’s standards.

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