The Nutritional Status of Patients Admitted to Priest Hospital

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Objectives: *To determine the prevalence of malnutrition in the Buddhist Priest Patients on admission to Priest Hospital.*
Material and Method: *During September 2007, 97 Buddhist Priest admitted to Priest Hospital were assessed for their nutritional status by using Subjective global assessment (SGA) and Body mass index (BMI). Serum albumin, hematocrit, and total lymphocyte count (TLC) were also evaluated.*
Result: *The status of Protein-calorie malnutrition was found to be 41.3% due to subjective global assessment and 39.2% due to body mass index. Overweight patient found to be 16.5%. There were 16.5%, 83.5% and 20.6% of patients who had serum albumin, hematocrit, and total lymphocyte count below acceptable level.*
Conclusion: *Malnutrition status in priests admitted to the Priest Hospital should be concerned and be properly managed for improved clinical outcome.*

Keywords: *Buddhist Priest In-patients, Malnutrition, Priest Hospital*

J Med Assoc Thai 2008; 91 (Suppl 1): S45-8
Full text. e-Journal: *http://www.medassocthai.org/journal*

Malnutrition is common problem in hospitalized patients. In 1998, Chuntrasakul et al found that 33.4% of patients admitted to surgical and medical wards in Siriraj hospital, Thailand were malnourished[1]. In 1999, Edington et.al found the prevalence of malnutrition on admission to four hospitals in England was 20%[2]. A large portion of patients are malnourished when admitted to hospital and some of them develop malnourishment further while in hospital[3,4]. The purpose of the present study was to assess the nutritional status of the patients of Buddhist priest hospital.

Material and Method

This prospective study was carried out in September 2007 at the surgical and medical ward of Priest Hospital. This is a 280 bed, general hospital in Bangkok, Thailand. Priest hospital takes care of male Buddhist priest patients only.

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During this period, patients were assessed if they were new admission (not re-admit within 28 days). Patients who were too sick, unable to stand, or enable to communicate were excluded. Patients who had not been assessed before the start of the intervention or treatment were also excluded. Laboratory tests were collected when the patient was admitted before IV fluid and treatments started.

Subjective global assessment (SGA) assessed and rated by the authors. BMI was calculated from weight and height using the formula BMI = weight (kg)/height^2 (meters^2). The patients were rated by WHO Expert Committed on physical status[5], 1995. Serum albumin, hematocrit, and total lymphocyte Count (calculated from the percentage of lymphocyte in CBC) were done by the laboratory unit in Priest Hospital.

Results

Ninety-seven patients were included in this study, 47 (48.5%) from surgical ward and 50 (51.5%) from medical ward. All were male with a mean age 57 (15-85 years). Twenty-six patients (26.8%) resided in

Bangkok and 71 (73.2%) were from rural parts of Thailand. Mean status as Priest was 11 years (1-62 years). The SGA and BMI are shown In Table 1.

Discussion

The results of the present study show that many patients (41.3% by SGA, 39.2% by BMI) were malnourished. This prevalence, in line with those of Chuntrasakul[1], found that 33.4 % were malnourished on admission when weight-height ratio is used. The previous prevalence of malnutrition on admission ranges from 20 to 80%[1,2,4,6,11]. This may depend on the patient and the hospital in the study. The severely ill patient in the teaching hospital has a risk to be malnourished.

SGA was developed by Detsky in 1987[7]. This method has been shown to be very successful in predicting complication in young patients undergoing

Table 1. Nutritional status of 97 priests based on SGA and BMI

Parameter	Number of patients (%)		
	Surgical (%)	Medical (%)	Total (%)
Subjective global assessment (SGA)			
- Well nourished	37 (38.1)	20 (20.6)	57 (58.7)
- Suspected or moderately malnourished	10 (10.3)	25 (25.8)	35 (36.1)
- Severely malnourished	0 (0)	5 (5.2)	5 (5.2)
			97 (100)
Body mass Index (BMI)			
- Severely malnourished (BMI < 16)	1 (1.0)	4 (4.1)	5 (5.2)
- Moderately malnourished (BMI 16.0 – 16.99)	0 (0)	2 (2.1)	2 (2.1)
- Mildly malnourished (BMI 17.0 – 19.99)	15 (15.5)	16 (16.5)	31 (31.9)
- Normally nourished (BMI 20.0-24.99)	24 (24.7)	19 (19.6)	43 (44.3)
- Pre – obese (BMI 25 – 29.99)	5 (5.2)	7 (7.2)	12 (12.4)
- Obese (BMI > 30)	2 (2.1)	2 (2.1)	4 (4.1)
			97 (100)

Table 2. Laboratory result of 97 priests in Priest Hospital

Parameter	Number of patients (%)		
	Surgical (%)	Medical (%)	Total (%)
Serum Albumin level , g/dl			
Acceptable (> 3.5)	39 (40.2)	42 (43.3)	81 (83.5)
Low (2.6 – 3.4)	5 (5.1)	8 (8.2)	13 (13.4)
Deficiency (< 2.8)	3 (3.0)	0 (0)	3 (3.1)
			97 (100)
Hematocrit , %			
Acceptable (> 44)	6 (6.2)	10 (10.3)	16 (16.5)
Low (37 – 43)	19 (19.6)	19 (19.6)	38 (39.2)
Deficiency (< 37)	22 (22.7)	21 (21.6)	43 (44.3)
			97 (100)
Total Lymphocyte count			
> 1,500 cells/mm^3	42 (43.3)	35 (36.0)	77 (79.4)
< 1,500 cells/mm^3	5 (5.2)	15 (15.5)	20 (20.6)
			97 (100)

gastroenterologic surgery. A disadvantage of this method is that SGA is a reliable assessment tool only when conducted by well-trained health professional. However, it can have different rating between two independent observers[8]. This method can also be performed in every hospital by trained nurses or physicians.

BMI has been found by the National Research Council's committee on Diet and Health[9] as a useful parameter for over or underweight. BMI is easy to obtain as patients have their weight and height taken when admitted. This method is simple and can be use routinely, in primary health care or even for patient living at home. The disadvantages are that some patients cannot stand erect such as the elderly and patients with osteoporosis. Furthermore, spinal deformity can affect stature and patient who are bedridden must be weighted using special equipment. Body weight can be inaccurate in some conditions such as edema, dehydration, hemodialysis, and ascites[4,12]. Therefore, error in body weight will result in faulty BMI measurement. There is a lack of BMI standards for the elderly and for Thai population. In the present study, mean age was 57 years and 49.5% were over 60. Therefore, there may be some faulty result.

The study shows that 16.5%, 83.5%, and 20.6% of patients had serum albumin, hematocrit, and total lymphocyte count (TLC) below acceptable level. Objective values and complete blood count are usually done on every admission. A large portion of malnourish patients has low level of these parameters. Unfortunately, low level is not specific to nutritional status alone. Patients illness and some intervention can also affect those values. Albumin levels can be used as predictive value of morbidity and mortality in hospital[10]. TLC deceases with progressive malnutrition and correlates with morbidity and mortality in hospitalized patients[10]. These parameters should be used to identify the patients at risk when admitted and during hospital stay or treatment. Once identified, they can have better outcome.

There is no gold standard for determining nutritional status because there is no universally accepted clinical definition of malnutrition. All current assessment parameters are affected by illness and injury. It is difficult to isolate the effect of malnutrition from the influence of the disease on clinical outcome[12]. Patients should be assessed using each parameter individually. Each parameter should be simple and practicable. They should be used in hospital by nurses or physicians. Nutritional status should be followed during hospital stay because malnutrition can develop during hospital stay[3,4,11]. Patient that have long hospital stay and are severely ill have a high risk of developing malnutrition. These can increase the patient illness in cases of non-awareness and non-management of malnutrition.

Buddhist Priest has a different manner from the general population. According to the Buddhist discipline, priest can have normal diet in the morning (before 12.00 am) and can have only fruit juice or water for the rest of the day. Their morning food should be provided by donations. In the elderly and those who have problem chewing, swallowing, or digesting or those needing nutritional supplement are at risk to be malnourished. Proper management of hospital illness combined with concern of the nutritional status will help improve the nutritional status of malnourished patients. This is cost effective and it improves clinical outcome, decrease morbidity and mortality, and improves the patients' quality of life.

Conclusion

Forty percent of the priests admitted to Priest Hospital were malnutrition which affect the treatment out come.

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การศึกษาภาวะโภชนาการของพระสงฆ์ที่เข้ารับการรักษาในโรงพยาบาลสงฆ์

ทัศนพงศ์ ไพรินทร์ , วรศักดิ์ ขวัญเจริญทรัพย์

วัตถุประสงค์: *เพื่อศึกษาอุบัติการณ์ของภาวะทุพโภชนาการในพระสงฆ์อาพาธ เมื่อเข้ารับการรักษาในโรงพยาบาลสงฆ์*

วิธีการศึกษา: *เก็บข้อมูลภาวะโภชนาการในพระสงฆ์อาพาธ ที่เข้ารับการรักษาในโรงพยาบาลสงฆ์ เดือนกันยายน พ.ศ. 2550 จำนวน 97 รูป ประเมินภาวะโภชนาการโดยใช้ Subjective global assessment (SGA) และ body mass index (BMI) ตรวจ albumin , hematocrit และ total lymphocyte count (TLC)*

ผลการศึกษา: *พบภาวะทุพโภชนาการ เมื่อใช้วิธี Subjective global assessment (SGA) จำนวน 41.3 % และเมื่อใช้ body mass index (BMI) 39.2 % พบภาวะน้ำหนักเกิน 16.5 % มีพระสงฆ์ที่มี albumin , hematocrit และ total lymphocyte count ต่ำ 16.5 % , 83.5 % , และ 20.6 % ตามลำดับ*

สรุป: *มีภาวะทุพโภชนาการในพระสงฆ์อาพาธ ที่เข้ารับการรักษาในโรงพยาบาลสงฆ์ จึงควรตระหนักถึงและรับการดูแลที่เหมาะสม เพื่อผลการรักษาที่ดียิ่งขึ้น*