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APPENDIX I

Hospital No. of the Patient _____ DEXA No. _____

QUESTIONNAIRE IN HEALTH SURVEY

BONE MASS IN ELDERLY FEMALE PATIENTS WITH AND WITHOUT
HIP FRACTURE RESULTED FROM FALLING

CONFIDENTIAL: Your answers on this form will be seen only by our
research group

ID number _____ Address _____
Name _____
Birthplace _____
(give district and province) Post code _____
Contact Tel. No. _____

ศูนย์วิทยุทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

Clinical Epidemiology Unit
Faculty of Medicine
Chulalongkorn University
BKK 10330, THAILAND

Feb. 1992

Please answer every question

SECTION A: YOUR DEMOGRAPHIC DETAILS

A1 What is your age and the date of birth?

_____ years old, born on Day _____ Month _____ Year _____

A2 What is your race?

1. Thai (native)
2. Thai Chinese
3. Chinese
4. Indian
5. Thai Islam

A3 What is your weight?

_____ kg

A4 How tall are you?

_____ cm

A5 Are you a vegetarian?

1. All kinds of food
2. Except some kinds of food,
such as _____

A6 Have your menstruation already stopped?

1. Not yet
2. Yes. For _____ years already.

SECTION B: SMOKING, ALCOHOL DRINKING AND MILK DRINKING STATUS

B1 What is your smoking status?

1. Never or seldom try a cigarette
2. Smoked before, but quit already
3. Smoke currently

Please answer every question

B2 What is your alcohol drinking status?

1. Never or seldom drink alcohol
2. Drank before, but quit already
3. Drink alcohol currently

B3 Do you drink milk after 20 years old?

1. No
2. Yes

SECTION C: PHYSICAL ACTIVITY

C1 How many times did you walk outdoor every day last 6 weeks?

1. Less than once a day
2. Once daily or more

C2 How many times did you walk upstairs every day last 6 weeks?

1. Less than once a day
2. Once daily or more

C3 How many times did you walk with a load (2 or more than 2 kg) every day last 6 weeks?

1. Less than once a day
2. Once daily or more

SECTION D: HEALTH STATUS AND DRUG USAGE

D1 What problem leads you to see a doctor this time?

D2 Do you have a history of falls (at least once) last year?

1. No
2. Yes

D3 Have you ever got any fractures before?

1. No
2. Yes

D4 What kind of fracture have you got?

1. Hip fracture
2. Other (specify) _____

Please answer every question

D5 Do you have any following health problems?

(you can choose more one)

- | | |
|------------------------|---------------------------|
| 1. Hypertension | 2. Hypotension |
| 3. Poor vision | 4. Mental problems |
| 5. Parkinsonism | 6. Hemiplegia |
| 7. Cardiac arrhythmias | 8. Arthritis |
| 9. Gait Change | 10. Vestibular problems |
| 11. Don't know | 12. Other (specify) _____ |

D6 Did the following happen to you often recently?

(you can choose more one)

1. Dizziness
2. Able to walk but feel weak
3. Able to walk but not stable
4. Unable to walk without help
5. Feel painful on your lower limb joints
6. Unable to see the road well when walking
7. Not or rarely happen

D7 Did you use sedatives last week before falling?

1. No
2. Yes

D8 Did you use anti-hypertensives last week before falling?

1. No
2. Yes, I used _____.

D9 Did you use any other drugs this month?

1. No
2. Yes (give out the most frequent one) _____

Please answer every question

SECTION E: TYPES OF FALLING

E1 You got

1. Falling while walking on the level
2. Falling while walking on the slope
3. Falling while standing up or sitting down
4. Falling from a chair or a bed
5. Falling while running on the level
6. Falling while running on the slope

E2 You fell down

1. On a slippery surface
2. Because of an obstacle or uneven road
3. Because of dizziness or too weak
4. 1 and 3
5. 2 and 3
6. Other (specify) _____

E3 The date you fell down

Day _____ Month _____ Year _____

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FOR DOCTORS ONLY

SECTION F: THE FOLLOWINGS SHOULD BE FILLED IN BY DOCTORS

F1 Diagnosis

1. Hip fracture
2. Trauma of soft tissue or dislocation of a joint
3. Fractures in other areas, such as in the head, neck, arms or legs
4. Other (please specify) _____

F2 Defined location of the fracture checked by X-ray

1. Neck of the femur
2. Trochanteric region
3. Head of the femur
4. Other (specify) _____

F3 BMD at the neck of the femur without fracture

1. Neck _____
2. Toch. _____
3. Inter. _____
4. Total _____
5. Ward's _____

F4 Singh Index (please use Appendix)

Grade _____

F5 How long is it from the date of falling to the date of BMD examination? _____ Days

F6 Age group of the patient

1. < 70
2. 70-79
3. 80 and over

F7 Smoking status of the patient

1. Response to No 1 and 2 (no smoking)
2. Response to No 3 (currently smoking)

FOR DOCTORS ONLY

F8 Alcohol drinking status

1. Response to No 1 and 2 (no drinking)
2. Response to No 3 (currently drinking)

F9 Milk drinking status

1. No
2. Yes

F10 Body mass index _____ (please use Appendix)

1. Underweight
2. Overweight
3. acceptable
4. Obesity

F11 Physical activity (score using accumulated number of the items)

1. Score 3 or 4 in Section C (L activity)
2. Score 5 or 6 in Section C (H activity)

F12 Medication

1. Sedatives or anti-hypertensives without effect increasing BMD
2. Anti-hypertensives with effect increasing BMD

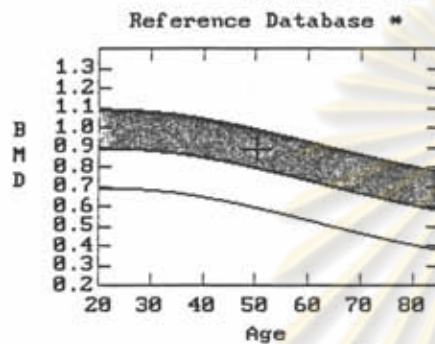
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APPENDIX II

DUAL ENERGY X-RAY ABSORPTIOMETRY (DEXA)

(Hologic QDR-2000)

CHULALONGKORN HOSPITAL

BMD(Neck[L]) = 0.881 g/cm²

Region	BMD	T	Z
Neck	0.881	-0.14 98% (22.8)	+0.87 111%
Troch	0.665	-0.63 92% (30.8)	-0.89 99%
Inter	1.209	+0.44 105% (29.8)	+0.94 112%
TOTAL	0.976	+0.81 100% (28.8)	+0.58 108%
Ward's	0.800	+0.84 101% (28.8)	+1.72 131%

* Age and sex matched

Reference Curve for Females

TK 19 Oct 89

k = 1.232 d0 = 125.1(1.000H) 5.336



25.Sep.1992 13:39 [98 x 102]
Hologic QDR-2000 (S/N 2143)
Array Left Hip Fast U4.42A:1

U09259207 Fri 25.Sep.1992 13:34
Name: SUMREANG NIAMKOONTOD
Comment:
I.D.: BD-322 Sex: F
S.S.#: - - Ethnic: 0
ZIPCode: Height: 167.00 cm
Scan Code: Weight: 62.00 kg
BirthDate: 01.Apr.42 Age: 50
Physician: DR.PRAKIT

Physician Comment:

Technique Good Fair Marginal
Uninterpretable

Z Score Expected Bone Loss
Borderline

T Score No Osteopenia Borderline
Osteopenia

Others Scoliosis Compression FX
Factors: Osteo-Arthritis Calcif.
Laminectomy Others

U09259207 Fri 25.Sep.1992 13:34
Name: SUMREANG NIAMKOONTOD
Comment:
I.D.: BD-322 Sex: F
S.S.#: - - Ethnic: 0
ZIPCode: Height: 167.00 cm
Scan Code: Weight: 62.00 kg
BirthDate: 01.Apr.42 Age: 50
Physician: DR.PRAKIT

C.F. 0.992 0.983 1.000

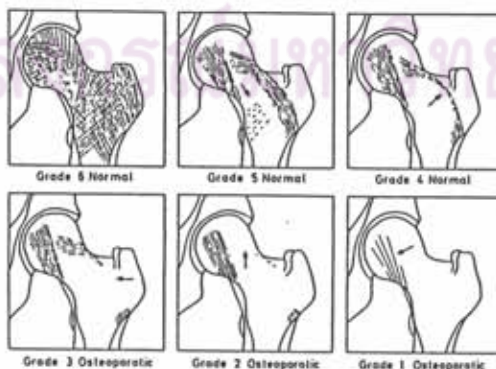
Region	Est.Area (cm ²)	Est.BMC (grams)	BMD (gms/cm ²)
Neck	6.23	5.49	0.881
Troch	11.44	7.61	0.665
Inter	17.90	21.64	1.209
TOTAL	35.57	34.74	0.976
Ward's	1.12	0.90	0.800
Midline	(98,114)-(170, 60)		
Neck	-49 x 19 at [24, 14]		
Troch	7 x 44 at [0, 0]		
Ward's	-11 x 11 at [5, 5]		

- Notes: 1. Reference Database was from Japanese population.
2. The range of the curve in Reference Database: +/- 2SD

APPENDIX III

SINGH INDEX

- Grade 6** All the normal trabecular groups are visible and the upper end of the femur seems to be completely occupied by cancellous bone.
- Grade 5** The structure of principal tensile and principal compressive trabeculae is accentuated. Ward's triangle appears prominent. The secondary compressive trabeculae are no longer clearly demarcated.
- Grade 4** Principal tensile trabeculae are markedly reduced in number but can still be traced from the lateral cortex to the upper part of the femoral neck. Ward's triangle opens up laterally.
- Grade 3** There is a break in the continuity of the principal tensile trabeculae opposite the greater trochanter.
- Grade 2** Only the principal compressive trabeculae stand out prominently, the other have been resorbed more or less completely.
- Grade 1** Even the principal compressive trabeculae are markedly reduced in number and are no longer prominent.



APPENDIX IV

BODY MASS INDEX

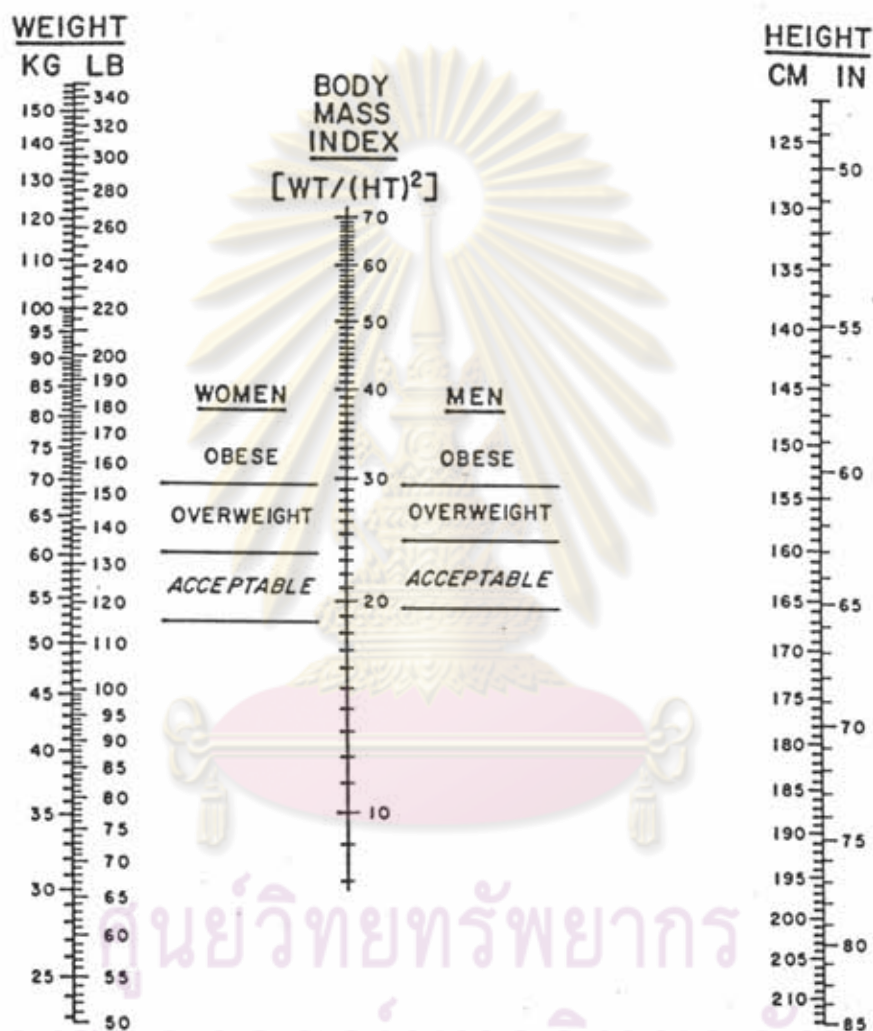


Figure 36.1 Nomogram for determining body mass index. A straight edge is attached from the individuals weight on the left side to the point on the right hand line which corresponds to their weight. The body mass index is the point at which this line connecting weight and height crosses the central vertical lines (Reproduced with permission of copyright G. A. Bray, 1978.)

VITAE

Mr. Tan Xiaowei was born on September 12, 1960 in Guangdong Province, P.R. China. He got Bachelor's Degree in medicine and Master's Degree in orthopaedics from Guangzhou College of Chinese Medicine respectively in 1983 and 1989. As an orthopaedist, he worked in Guangdong Provincial Hospital of Chinese Medicine from 1983 to 1986 and from 1989 to 1991. He has been a member of a Chinese national key research project in Necrosis of the Femoral Head and Hip Fracture since 1987. He has been enrolled in Health Development (Research Program) toward Master of Science at Faculty of Medicine, Chulalongkorn University since 1991. His present position is an orthopaedist in Guangdong Provincial Hospital of Chinese Medicine, China.



ศูนย์วิทยุทางการแพทย์
จุฬาลงกรณ์มหาวิทยาลัย