UNIVERSITI PUTRA MALAYSIA

RISK FACTORS OF UTERINE FIBROID AMONG PATIENTS IN HOSPITAL SELAYANG AND HOSPITAL PUTRA JAYA, MALAYSIA

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FPSK(m) 2010 27
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HOSPITAL SELAYANG AND HOSPITAL PUTRA JAYA, MALAYSIA

BY

FATANEH BANDARCHIAN

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Master of Science

July 2010
DEDICATIONS

This thesis is dedicated especially to my beloved parents, sister, brothers, friends and all those individuals behind the scenes who made it possible to complete my study successfully.
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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July 2010

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Uterine Fibroid (UF) starts in the muscle tissues of the womb which can grow into the uterine cavity. This disease is common gynaecological disorders with numerous adverse health effects that will affect the woman’s quality of life.

Since there are limited studies about risk factors of uterine fibroids in Malaysia, this case-control study aims to evaluate the proportion, presentation and management of uterine fibroid and also investigates its socio-demographic, life style, obstetrical& gynecological characteristics among Malaysian women attending Gynecology clinics in Selayang and Putra Jaya Hospitals.

In this study, based on secondary data after screening for inclusion and exclusion criteria, 752 women treated in O&G wards in the two hospitals from 2001 to 2005 were enrolled upon obtaining ethical clearance from Ethics Committee in University Putra Malaysia and the Ministry of Health Malaysia. Three hundred seventy six
patients with uterine fibroid confirmed by HPE and ultrasound were recruited as cases, while a similar number of women diagnosed negative for uterine fibroid in the same clinics were recruited as controls. A structured and pre-tested proforma were used for data collection from the clinical records.

Results for independent t-test revealed significant mean difference in term of age in patients with UF as compared to Non-fibroids (44.22±8.21 years vs 28.54±5.60 years, p=0.001). Patients with UF were found to have less parity than women without UF (p=0.001). UF cases were more significantly found to have last child birth (LCB) of 5 years and above as compared to controls (p=0.000, OR=12.65 95% CI: 8.51-18.79). Odds ratio of occurrence of Uterine Fibroid among diabetic patients was 3.03 times more than non-diabetic patients ($\chi^2=7.61$, p=0.006, 95% CI: 1.33-6.90). Those individuals with hypertension were 6.32 times, more likely to get uterine fibroid than individuals without hypertension ($\chi^2=69.02$, p=0.001, 95% CI: 3.94-10.14).

Patients in higher socio-economic status with social class-2 were 2.19 times more likely to develop UF than women from lower socio-economic status ($\chi^2=10.38$, p=0.01, 95% CI: 1.35-3.57). Results showed a significant association between smoking and UF ($\chi^2=6.92$, p=0.01, 95% CI: 0.17-0.80). There was a significant protective association between alcoholic drinking and uterine fibroid ($\chi^2=38.07$, p=0.001, 95% CI: 0.04-0.23).

Multivariate analysis concluded that higher age (adjusted OR=1.55, 95% CI=1.42-1.68), duration of last child birth of more than 5 years (adjusted OR=4.82, 95%
CI=2.26-10.29), parity (adjusted OR= 0.05, 95% CI=0.02-0.11) and alcohol consumption (adjusted OR=0.08, 95% CI=0.01-0.51) were found to contribute significantly to the risk for uterine fibroid.

The findings of the present study provide an insight into risk factors that contribute to uterine fibroids among Malaysian women attending the gynecology clinics in Hospital Selayang and Hospital Putra Jaya.
Abstrak tesis dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains.

FAKTOR-FAKTOR RISIKO KETUMBUHAN FIBROID RAHIM DI ANTARA PESAKIT DI HOSPITAL SELAYANG DAN PUTRA JAYA MALAYSIA

Oleh

FATANEH BANDARCHIAN

Julai 2010

Pengerusi: Profesor Madya Latiffah A Latiff, PhD

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Ketumbuhan fibroid rahim bermula di dalam tisu otot rahim dan boleh tumbuh ke dalam rongga rahim. Penyakit ini adalah gangguan ginekologi biasa yang dengan kesan sampingan kesihatan serius yang boleh menjekaskan kualiti hidup wanita. Kajian mengenai kejadian dan faktor risiko berkaitan dengan ketumbuhan fibroid rahim di Malaysia didapati masih terhad. Oleh itu, kajian kes kewalan ini bertujuan untuk mengkaji proporsi, presentasi atau penampilan klinikal dan pengurusan ketumbuhan fibroid serta mengkaji ciri-ciri sosio-demografik, gaya hidup, dan faktor obstetrik & ginekologi (O&G) di kalangan kaum wanita di Malaysia yang mengunjungi Klinik Ginekologi di Hospital Selayang dan Putrajaya.

Dalam kajian ini yang berasaskan data sekunder yang di tapis menggunakan ciri-ciri kemasukan dan pengecualian, 752 orang wanita yang dirawat di wad-wad O&G di
dua buah hospital ini dari tahun 2001 sehingga 2005 telah didaftarkan ke dalam kajian ini setelah kajian ini diberi kelulusan etika. Seramai 376 orang pesakit dengan ketumbuhan fibroid rahim yang disahkan melalui HPE dan ultrabunyi diambil sebagai bahan kajian kes manakala jumlah yang sama bagi wanita yang disahkan tidak mengalami ketumbuhan fibroid rahim diambil sebagai kumpulan kawalan.

Pengumpulan data dijalankan keatas rekod klinikal pesakit menggunakan Proforma berstruktur yang telah di pra-uji. Hasil kajian menggunakan ujian-t tak bersandar menunjukkan perbezaan min yang ketara bagi umur wanita dengan fibroid rahim (44.22±8.21 th vs 28.54±5.60 th, p =0.001) dan kumpulan kawalan wanita mengalami fibroid rahim mempunyai status pariti lebih rendah dari wanita tidak mengalami fibroid rahim (p=0.001). Wanita dengan fibroid rahim mencatatkan tempoh kelahiran terakhir selama 5 tahun atau lebih yang lebih tinggi dari wanita kawalen (χ²=192.29, p=0.001, OR= 12.65, 95% CI: 8.51-18.79).

Nisbah kebarangkalian kasar mendapat fibroid rahim di antara kumpulan kes dan kumpulan kawalan adalah ketara. Keputusan ini menunjukkan bahawa nisbah kebarangkalian mendapat fibroid rahim di kalangan wanita mengalami kencing manis adalah 3.03 kali lebih tinggi daripada wanita yang tidak mengalami kencing manis (χ²=7.61, p=0.006, OR=3.03, 95% CI: 1.33- 6.90). Selain itu, individu yang mengalami tekanan darah tinggi adalah 6.32 kali lebih berkemungkinan mengalami fibroid rahim daripada individu tanpa tekanan darah tinggi (χ²=69.02, p=0.001, OR=6.32, 95% CI: 3.94-10.14).
Pesakit dalam kelas sosio-ekonomi yang tinggi iaitu kelao kedua adalah 2.19 kali lebih berkemungkinan mengalami ketumbuhan fibroid rahim berbanding kaum wanita dari status sosio-ekonomi yang lebih rendah ($\chi^2=10.38$, p=0.01, OR=2.19, 95% CI: 1.35-3.57). Keputusan kajian juga menunjukkan hubungan yang ketara di antara tabiat merokok dengan ketumbuhan fibroid ($\chi^2=6.92$, p=0.01, OR=0.37, 95% CI: 0.17-0.80). Terdapat kaitan yang ketara di antara pengambilan alkohol dan fibroid rahim ($\chi^2=38.07$, p=0.001, OR=0.09, 95% CI: 0.04-0.23).

Analisis multivariat menunjukkan bahawa peningkatan umur (penyesuaian OR=1.55, 95% CI=1.42-1.68), jarak tempoh kelahiran terakhir 5 tahun atau lebih (penyesuaian OR=4.82, 95% CI=2.26-10.29) dan pengambilan alkohol (penyesuaian OR=0.08, 95% CI=0.01-0.51) didapat memberikan sumbangan yang tinggi terhadap risiko ketumbuhan fibroid rahim.

Hasil kajian ini menunjukkan terdapat hubungkait antara faktor-faktor risiko diatas dengan fibroid rahim kalangan wanita yang dirawat di klinik ginekologi Hospital Selayang dan Hospital Putra Jaya.
ACKNOWLEDGEMENTS

First my praise to Almighty Allah for giving me the strength and utmost courage to complete this study and peace be upon his final Prophet and Messenger Mohammad (SWS) who has been always the source of my inspiration in life especially in current thesis.

I am whole-heartedly thankful to Associate Professor Dr. Latiffah A Latiff the Chairman of my Supervisory Committee for her invaluable advice, guidance, constant support and encouragement, exceptional ideas, and tireless optimism.

I also would like to convey sincere gratitude to my co-supervisor, Associate Professor Dr Noraihan Mohd Nordin for her kindness, valuable suggestions, great experience and persistent help in the field of Gynaecology in the Kuala Lumpur Hospital.

I am also thankful to Dr. Rohani Abd Aziz for her valuable guidance, useful suggestions in checking my thesis write-up. My appreciation also goes to Dean of Faculty Medicine and Health Sciences, UPM, Prof Dr Azhar Md Zain, Dr. Noor Haliza Yussof, Head of Obstetric and Gynaecology Department Selayang Hospital, Dr. Hazim, Head of Obstetric and Gynaecology Department Putra Jaya Hospital and all nurses in Selayang and Putra Jaya Hospitals.

Finally, I express my deepest affection, appreciation and thanks to my mother and my sister who encouraged me with their love and understanding during difficult moments and also shared my joy and success. All of them have made immense contribution to my study and life by their support, inspiration, understanding and sacrifices.
I certify that an Examination Committee met on (08/03/2011) to conduct the final examination of Fataneh Bandarchian on her Master of Science thesis entitled “Risk Factors of Uterine Fibroid among patients in Hospital Selayang and Hospital Putra jaya, Malaysia” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Putra Malaysia (Higher Degree) Regulation 1981. The committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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Date:
DECLARATION

I declare that this thesis is my original work except or quotations and citation which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

FATANEH BANDARCHIAN

Date: 27 July 2010
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATIONS</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ix</td>
</tr>
<tr>
<td>APPROVAL SHEETS</td>
<td>x</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF TABLE</td>
<td>xvii</td>
</tr>
<tr>
<td>LIST OF FIGURE</td>
<td>xviii</td>
</tr>
<tr>
<td>LIST OF ABBREVIATION</td>
<td>xix</td>
</tr>
</tbody>
</table>

## CHAPTER

### 1 INTRODUCTION

1.1 Introduction 1  
1.2 Problem statement 3  
1.3 Significance of the study 4  
1.4 Research Questions 5  
1.5 Research Objectives 6  
1.5.1 General Objectives 6  
1.5.2 Specific Objectives 6  
1.6 Null Hypothesis 7  
1.7 Glossary of Terms 8  
1.8 Conceptual Framework 8

### 2 LITERATURE REVIEW

2.1 Fibroid situation in Malaysia 11  
2.2 Definition of Uterine Fibroid 12  
2.3 Types of Uterine Fibroid 13  
2.3.1 Classification of Fibroid by their location 13  
2.3.2 Types of Uterine Fibroid in term of malignancy 15  
2.4 Symptoms and signs of Uterine Fibroid 16  
2.4.1 Asymptomatic Fibroids 16  
2.4.2 Menstrual Symptoms 16  
2.4.3 Symptoms in urinary system 17  
2.5 Complications of Uterine Fibroids 17  
2.5.1 Role of Fibroids in anemia and urinary tract system 17  
2.5.2 Role of Uterine Fibroids in pregnancy and subfertility 18  
2.6 Diagnosis of Uterine Fibroid 20  
2.7 Types of treatments for symptomatic Fibroids 21
2.7.1 Medical Treatment 21
2.7.2 Surgical Treatment 23
2.8 Past research findings in Uterine Fibroid Aetiology 29
  2.8.1 Phthalates 30
  2.8.2 Gonadal steroids 30
2.9 Theories associated with Uterine Fibroid 34
  2.9.1 Parity and Uterine Fibroid 35
  2.9.2 Duration of last child birth and Uterine Fibroid 37
  2.9.3 Hypertension and Uterine Fibroid 37
  2.9.4 Diabetes and Uterine Fibroid 39
  2.9.5 Smoking and Uterine Fibroid 40
  2.9.6 Alcohol consumption and Uterine Fibroid 41
2.10 Relationship between Socio-demographic factors, and Uterine Fibroid 43
  2.10.1 Relationship between race and Uterine Fibroid 43
  2.10.2 Relationship between age and Uterine Fibroid 44
  2.10.3 Relationship between occupations and Uterine Fibroid 45
2.11 Natural history of Uterine Fibroids 46
2.12 Prevention of Uterine Fibroids 46

3 METHODOLOGY 48
3.1 Study Location 48
  3.1.1 Putra Jaya Hospital 48
  3.1.2 Selayang Hospital 50
3.2 Study Design 52
3.3 Study Duration 53
3.4 Target Population 53
3.5 Sampling 53
  3.5.1 Sampling Method 53
  3.5.2 Sample Unit 54
    3.5.3 Sample Size 54
3.6 Criteria for Cases and Controls 55
  3.6.1 Inclusion and Exclusion Criteria for Cases 55
  3.6.2 Inclusion and Exclusion Criteria for Control (patients not diagnosed with Uterine Fibroids) 56
3.7 Case-Control Study 58
  3.7.1 Case 58

xv
3.7.2 Variables in case-control group

3.8 Instruments and data collection

3.8.1 Design of proforma

3.8.2 Data collection process

3.8.3 Data collection techniques

3.9 Pilot Study

3.10 Ethics of the study

3.11 Data Analysis

4 RESULTS

4.1 Descriptive analysis of uterine Fibroid (UF)

4.1.1 Percentage of Uterine Fibroid at Selayang and Putra Jaya Hospitals

4.1.2 Clinical presentation of UF

4.1.3 Types of Uterine Fibroid

4.1.4 Types of Treatment for Fibroid

4.1.5 Complications of Surgical Treatment

4.1.6 Menstrual history in case group

4.1.7 Pregnancy outcomes after myomectomy in case group

4.1.8 Anemia in case and control group

4.2 Bivariate Analysis

4.2.1 Associations between age, parity and Fibroid by t-test

4.2.2 Associations by chi-square test of independence

4.3 Outcomes of statistical analysis for null hypothesis No.1, 2, 3, 4

4.4 Multivariate Analysis

4.4.1 Logistic Regression

4.4.2 Regression Diagnostics

4.4.3 Multicollinearity

4.4.4 Fitness of the model

4.5 Binary logistic regression model for socio-demographic characteristic

4.6 Binary Logistic regression model for Obstetric &Gynaeacology factors

4.7 Binary logistic regression model for medical history (MH)

4.8 Binary logistic regression model for life style

4.9 Outcomes of statistical analysis for null hypothesis No.5

5 DISCUSSION

5.1 Percentage of Uterine Fibroid in both hospitals

5.2 Socio-demographic factors and Fibroids
5.2.1 Race                                                                                                           84
5.2.2 Age                                                                                                            85
5.2.3 Occupation                                                                                                 86
5.3 Obstetric and Gynaecology characteristics factors and Fibroid                       87
  5.3.1 Number of parity                                                                                       87
  5.3.2 Duration of years since the Last Child Birth (LCB)                                 88
5.4.1 Hypertension                                                                                              90
5.4.2 Diabetes                                                                                                     91
5.5 Types of treatment for Fibroid                                                                         92
  5.5.1 Medical Treatment                                                                                     92
  5.5.2 Surgical treatment                                                                                      93
5.6 Post-operative complications for Fibroids                                                               94
  5.6.1 Pregnancy outcomes after myomectomy                                                   95
5.7 Life style factors and Fibroids (smoking and consumption of alcohol)           96
5.8 Summary of findings                                                                                           98
6  CONCLUSIONS AND RECOMMENDATIONS  100
  6.1 General Discussion                                                                                         100
  6.2 Conclusion                                                                                                      100
  6.3 Strengths and limitations of the study                                                                   102
  6.4 Recommendations for future studies                                                              103
BIBLIOGRAPHY                                               105
APPENDIX A                                                  116
APPENDIX B                                                  125
BIODATA OF STUDENT                                         127