香港乳癌資料庫
Hong Kong Breast Cancer Registry
香港乳癌基金會策動 A Hong Kong Breast Cancer Foundation Initiative

香港乳癌資料庫簡報
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喪偶者或非文職／勞動工作者的延誤求醫情況較為普遍

前言

患者在發現乳癌病癥後延誤求醫的情況在醫療和經濟上都值得讓人關注，因為研究發現延誤時間長的患者較大機會有局部癌症擴散或遠端轉移和不理想的預後評估[1]，而通常治療晚期乳癌病人所需要的醫療資源也較多。婦女在乳癌病癥出現後首次求醫時間的中位數是 12 至 61 天[1-10]，14％至 42% 患者超過三個月才首次求醫[1-10]。除了患者延誤求醫外，延誤也可能在診斷和治療過程中出現，例如因為資源緊絀及輪候時間長。一些海外國家成立了臨床醫療標準，縮短患者輪候診斷和治療的時間，以盡量達到及早發現乳癌的好處，並減少患者和家人不良的心理負擔。這些標準列明首次抽針確診罹患乳癌的日期與首次治療日期之間的時間應該少於 21 至 42 天[11-14]。

研究對象及方法

本研究的對象屬於《香港乳癌資料庫第六號報告》所涵蓋患者群的其中一個子集，當中只包括自我發現乳癌病癥以及在香港接受所有癌症治療的患者。圖 1 說明了在整個確診及治療乳癌階段中不同延誤的定義，並以三個月作為分界點把患者分類為延誤者。三個月的時間被認為在乳癌期數和存活方面有重要的臨床意義[2,15]。患者被分為三個醫療組別（表 1）。相信與延誤有關的社會統計資料及臨床因素都以二元邏輯回歸作分析（ binary logistic regression），以衡量它們與延誤求醫或診治之間的關係。概率值（p-value）低於 0.05 代表在統計學上有明顯的差異，而所有統計分析均使用 SPSS 軟件版本 19.0 進行（SPSS Inc., Chicago, IL, USA）。

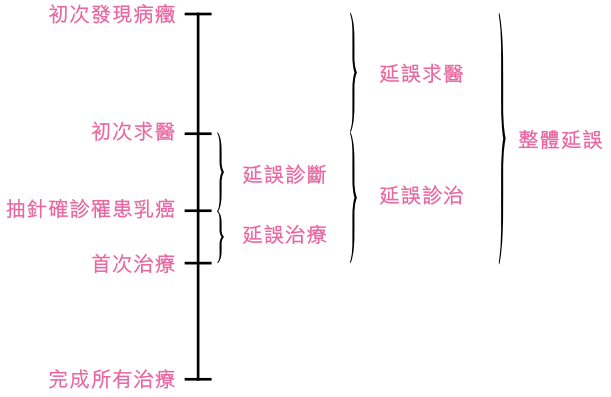

圖 1 乳癌的不同診斷和治療階段及延誤的定義

結果

本患者群組確診乳癌時的年齡中位數是 49.1 歲。2,242 名自我發現乳癌癥狀的患者的社會統計資料及臨床特癥載於表 2 及表 3。

從初次發現病癥到初次求醫（延誤求醫）

從初次發現病癥到初次求醫（延誤求醫）之間的時間中位數為 40.0 天（表 4）。大約三分一患者（32.5%）等

表 1 醫療服務組別的種類

醫療服務組別	定義
公營組別	患者在公立醫院接受所有治療
私營組別	患者在私立醫院/ 診所接受所有治療
公私營組別	患者在私立醫院/ 診所和公立醫院進行治療，例如患者在私立醫院接受手術後轉往公立醫院接受化療，或者相反。

待三個月或以上才求醫（圖 2），人數佔整體延誤者的 71.3%。公營組別患者比私營或公私營組別的患者延誤求醫時間顯著較長（表 4）（$p < 0.05$）。二元邏輯回歸分析的結果顯示，患者的職業和婚姻狀況是延誤求醫時間較長的顯著因素（表 5），尤其是非文職或勞動工作者，又或喪偶者都較高機會成為延誤者（延誤時間≧三個月）。延誤求醫三個月或以上的患者有更大可能被診斷為晚期癌症（調整後 OR = 1.68；$p < 0.001$）（表 6）。

從初次求醫到首次治療（延誤診治）

從初次求醫到首次接受治療（延誤診治）的時間中位數是 20.0 天。大部分患者（80.9%）在確診癌症後一個月內開始首次治療，符合國際標準 [11-14]，12.7% 患者的延誤診治時間達三個月或以上（表 4）。二元邏輯回歸分析結果顯示，較高收入患者成為延誤診治者的可能性較低；具體而言，家庭月入介乎港幣 30,000-59,000 元的患者群有統計學上的顯著差異（調整後 OR = 0.17；$p = 0.010$）。延誤診治的時間與確診期數並無關聯（表 6）。

表 2 2,242 名乳癌患者的社會人口特徵

	人數	%
總數	2,242	100.0
年齡組別		
40 以下	319	14.3
40-49 歲	868	39.0
50-59 歲	606	27.2
60-69 歲	257	11.5
70 或以上	177	7.9
醫療服務組別		
公營組別	846	37.7
私營組別	606	27.0
公私營組別	790	35.2
職業		
沒有（主婦 / 退休 / 待業）	928	43.2
專業	222	10.3
文職	519	24.2
非文職 / 勞動工作	406	18.9
自僱	71	3.3
教育程度		
中學或以下	1,668	75.5
大專或以上	540	24.5
居住區域		
香港島	504	23.0
九龍	789	36.1
新界	871	39.8
離島	23	1.1
家庭每月收入（港幣 $）		
少於 10,000	285	20.1
10,000-29,999	553	39.0
30,000-59,999	349	24.6
60,000 或以上	232	16.3
婚姻狀況		
未婚	321	14.4
已婚 / 同居	1,655	74.2
喪偶	128	5.7
離婚 / 分居	127	5.7

表 3 2,242 乳癌患者的臨床特徵

	人數	%
良性乳房疾病病歷		
沒有	1,924	87.9
有	265	12.1
家族乳癌歷史		
沒有	1,858	84.6
有	337	15.4
過去乳房檢查習慣		
自我乳房檢查		
每月	437	20.3
非每月	1,721	79.7
臨床乳房檢查		
定期	850	39.4
不定期	1,307	60.6
乳房 X 光造影檢查		
定期	470	21.9
不定期	1,676	78.1
乳房超聲波檢查		
定期	362	18.1
不定期	1,643	81.9
出現的乳癌病癥		
腫塊 (+/- 其他癥狀)	2,057	92.0
其他癥狀	178	8.0
臨床腫瘤大小		
2 厘米或以下	975	54.6
大於 2 厘米	810	45.4
臨床淋巴結狀況		
呈陰性	1,778	79.3
呈陽性	464	20.7
臨床腫瘤轉移狀況		
沒有轉移	1,284	76.0
區域性轉移	383	22.7
遠端轉移	22	1.3

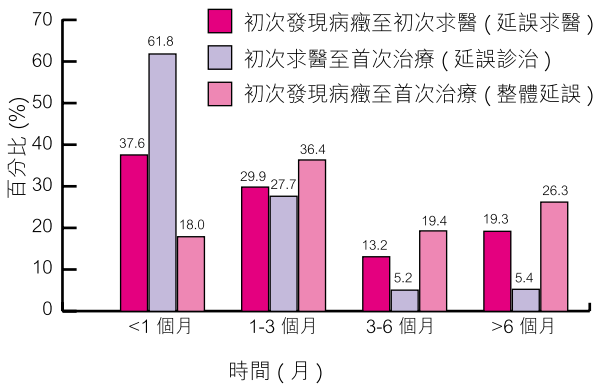

圖 2 2,242 名乳癌患者在不同確診及治療階段（從首次發現病癥至首次治療）所需的時間。

表 4 按醫療組別分析延誤時間及延誤者百分比

	總數	公營組別	私營組別	公私營組別
人數 (%)	2,242 (100.0%)	846 (37.7%)	606 (27.0%)	790 (35.2%)
延誤求醫				
中位數 (日)	40	61*	31*	36*
四分位距 (日)	16-117	23-182	14-96	15-92
延誤者 (≧ 3 個月) 人數 (%)	729 (32.5%)	355 (42.0%)#	168 (27.7%)#	206 (26.1%)#
延誤診治				
中位數 (日)	20	49*	11*	11*
四分位距 (日)	8-45	34-82	6-19	6-20
延誤者 (≧ 3 個月) 人數 (%)	285 (12.7%)	217 (25.7%)#	34 (5.6%)#	34 (4.3%)#
整體延誤				
中位數 (日)	79	136*	51*	53*
四分位距 (日)	39-193	75-266	27-124	28-111
延誤者 (≧ 3 個月) 人數 (%)	1,023 (45.6%)	573 (67.7%)#	200 (33.0%)#	250 (31.6%)#

* 每一類延誤之中，三個醫療服務組別之間的中位數出現顯著差異 ($p<0.05$)。
# 每一類延誤之中，三個醫療服務組別之間的卡方檢驗（Chi Square test）出現顯著差異 ($p<0.05$)。

表 5 2,242 名乳癌患者中，可能引致延誤求醫或診治時間較長的因素

	延誤求醫≧ 3 個月	延誤診治≧ 3 個月
	調整後 OR§	調整後 OR#
職業		
沒有 (主婦 / 退休 / 待業)	1.00	
專業	1.52 (0.88, 2.63)	
文職	1.34 (0.89, 2.01)	--
非文職 / 勞動工作	1.59 (1.06, 2.40)*	
自僱	1.08 (0.47, 2.47)	
婚姻狀況		
未婚	1.00	
已婚 / 同居	1.40 (0.92, 2.12)	--
喪偶	3.38 (1.56, 7.33)*	
離婚 / 分居	1.46 (0.75, 2.87)	
家庭每月收入（港幣 $ ）		
少於 10,000	1.00	1.00
10,000-29,999	0.89 (0.61, 1.29)	0.60 (0.30, 1.23)
30,000-59,999	0.91 (0.56, 1.47)	0.17 (0.05, 0.59)*
60,000 或以上	1.11 (0.60, 2.05)	0.51 (0.12, 2.16)
良性乳房疾病病歷		
沒有	1.00	--
有	1.49 (0.99, 2.24)	
醫療服務組別		
公營組別	1.00	1.00
私營組別	0.52 (0.33, 0.83)*	0.13 (0.04, 0.38)*
公私營組別	0.57 (0.39, 0.83)*	0.07 (0.03, 0.17)*
首次發現病徵年份		
2000 或以前	1.00	
2001-2005	1.02 (0.52, 1.98)	--
2006-2010	0.72 (0.39, 1.35)	
2011-2014	0.44 (0.22, 0.91)*	
首次確診年份		
2000 或以前		1.00
2001-2005	--	0.26 (0.05, 1.25)
2006-2010		0.20 (0.05, 0.81)*
2011-2014		0.23 (0.05, 1.01)

從初次發現病癥到首次治療（整體延誤）

整體延誤時間的中位數是 79.0 天（表 4）。大約半數患者（45.7%）在初次發現病癥至少三個月或以上後接受首次治療（圖 2）。整體延誤時間為三個月或以上的患者，較大可能被確診為晚期癌症（調整後 OR = 1.55；p = 0.001）（表 6）。

結論

研究結果顯示喪偶者或非文職/ 勞動工作者這兩個類別的患者延誤求醫情況較為普遍，而延誤求醫或整體延誤與確診時為晚期癌症亦有關聯。我們倡議以這些特定群組的婦女為目標，加強關注乳房健康的教育，推動她們有需要時要盡早尋求醫療協助。

香港乳癌基金會乳健中心是以社區為本的乳健教育、檢查、及診斷中心，目標是向香港婦女推廣乳房健康教育，並彌補公私營醫療服務的差距。我們的服務以社區為本，除提供相宜的服務予廣大的婦女外，也提供免費服務予弱勢社群。

§ 沒有在表 5 展示的非顯著因素（multivariate model）包括年齡組別、教育程度、居住地區、家庭月入、家族乳癌歷史、過去乳房檢查習慣（包括自我乳房檢查、臨床乳房檢查、乳房 X 光造影檢查、乳房超聲波檢查）、出現的乳癌病徵。
# 沒有在表 5 展示的非顯著因素（multivariate model）包括年齡組別、職業、教育程度、居住地區、家庭每月收入、婚姻狀況、良性乳房疾病病歷、家族乳癌歷史、過去乳房檢查習慣（包括自我乳房檢查、臨床乳房檢查、乳房 X 光造影檢查、乳房超聲波檢查）、出現的乳癌病徵、臨床腫瘤大小、臨床淋巴結狀況、臨床轉移狀況。
* 概率值 <0.05

表 6 延誤求醫、延誤診治和整體延誤與確診時腫瘤較大和淋巴結呈陽性及乳癌晚期的風險分析

	延誤求醫	延誤診治	整體延誤
	調整後 OR[§]	調整後 OR[#]	調整後 OR^
腫瘤大小			
2 厘米或以下	1.00	1.00	1.00
大於 2 厘米	1.49 (1.20, 1.85)*	0.81 (0.60, 1.11)	1.32 (1.07, 1.63)*
淋巴結狀況			
呈陰性	1.00	1.00	1.00
呈陽性	1.34 (1.09, 1.65)*	0.80 (0.60, 1.08)	1.21 (0.99, 1.48)
癌症期數			
初期 (I-IIB)	1.00	1.00	1.00
晚期 (III-IV)	1.68 (1.31, 2.16)*	1.30 (0.93, 1.84)	1.55 (1.19, 2.01)*

§ 年齡、過去乳房檢查習慣、出現的乳癌病癥、醫療服務組別、延誤診治等均經調整
# 年齡、過去乳房檢查習慣、出現的乳癌病癥、醫療服務組別、延誤求醫等均經調整
^ 年齡、過去乳房檢查習慣、出現的乳癌病癥、醫療服務組別等均經調整
* P<0.05

編者的話

本期簡報旨在補充《香港乳癌資料庫第六號報告》，探討患者發現乳癌病癥後延誤求醫和延誤診治的程度及影響。研究結果顯示喪偶者或非文職/ 勞動工作者這兩個類別的病人延誤求醫情況較為普遍，而延誤求醫或診治則與確診為晚期疾病有關。加強香港婦女對乳房健康的關注，縮短延誤求醫的時間，可有助及早發現乳癌。我們希望有關研究能為乳癌檢測提供洞見，進而鼓勵更多研究和討論，促使當局修改政策，使之與我們減低乳癌威脅的使命配合。

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Delay in Medical Consultation is More Common in Widows or Non-clerical/ Labour Workers

Introduction

Delay in seeking medical consultation for breast cancer related symptoms is of both medical and economical concerns. Studies have found that longer delay was associated with higher probability of local cancer spread or distant metastasis, and poorer prognosis[1]. Consequently, more medical resources are usually required to treat patients with later disease stage. The median time taken for women to seek first medical consultation ranged from 12 to 61 days[1-10] and 14-42% of the patients took more than three months to seek first medical consultation[1-10]. Apart from patients' delays in seeking first medical consultation, delays can also be attributable to the diagnostic and treatment process, such as limited resources and long waiting times. Some overseas countries have established clinical practice standards to minimize patients' waiting times for diagnosis and treatment in order to maximize the benefit of early detection and reduce the adverse psychological burden on patients and their families. These standards state that the time between the date of first diagnostic biopsy examination and the date of first treatment should be less than 21 to 42 days[11-14].

Subjects & Methods

The patients in this study were a subset of the patient cohort covered by the "Hong Kong Breast Cancer Registry Report No.6", and only included patients who self-detected their symptomatic cancers and those who received all cancer treatments in Hong Kong. Definitions of delays at different stages in cancer diagnosis and treatment are illustrated in Figure 1 and a cut-off point of three months - which was found to have clinical significance on disease stage and survival - was used to classify patients into delayers[2,15].

Patients were classified into three medical groups (Table 1). The potential sociodemographic and clinical factors were put into binary logistic regression to evaluate their adjusted associations with the delays in medical consultation and treatment. A p-value <0.05 was considered to be statistically significant and all statistical analyses were performed using SPSS software version 19.0 (SPSS Inc., Chicago, IL, USA).

Results

The median age of the patient cohort at the time of breast cancer diagnosis was 49.1 years old. The sociodemographic and clinical characteristics of 2,242 self-detected breast cancer patients are shown in Tables 2 and 3.

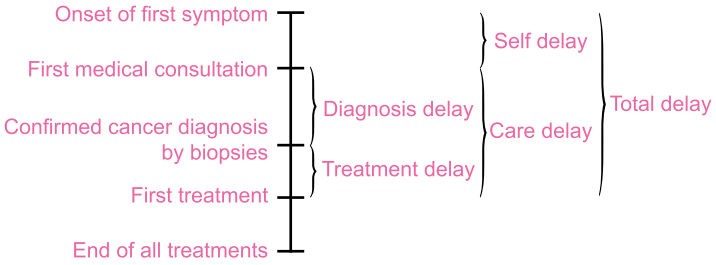

Figure 1 Different stages of breast cancer diagnosis and treatment, and definition of delays.

Table 1 Types of medical service groups

Medical service group	Definitions
Public Group	Patients who received all treatments in public hospitals
Private Group	Patients who received all treatments in private hospitals/clinics
Mixed Group	Patients who received treatments in both private hospitals/clinics and public hospitals, e.g. patients received chemotherapy in public hospitals after receiving surgery in private hospitals or vice versa.

From onset of symptom to first medical consultation (Self-delay)

The median time between the initial symptom and seeking medical attention (self-delay) was 40.0 days (Table 4). Around one-third of the patients (32.5%) waited three or more months before seeking medical attention (Figure 2), contributing to 71.3% of the total delayers. Self-delay was significantly more common in public patients than private patients or patients from the mixed group (Table 4) ($p<0.05$). Results of binary logistic regression showed that occupation and marital status were found to be the significant factors associated with longer self-delay (Table 5); specifically, patients who had non-clerical or labour occupation or those who were widowed were more likely to have longer self-delay. Patients with self-delay of three or more months were more likely to be diagnosed at advanced cancer stage (Adjusted OR=1.68; $p<0.001$) (Table 6).

From first medical consultation to first treatment (Care delay)

The median time between seeking medical attention and receiving first treatment (care delay) was 20.0 days. Majority of the patients (80.9%) started their first treatments in less than one month from the diagnosis of cancer which is within international standards[11-14] and 12.7% of the patients had care delay of three or more months (Table 4). Results of the binary logistic regression showed that patients with higher income were less likely to have longer care delay; specifically, statistical significance was observed in patients with monthly household income of HKD30,000-59,000 (Adjusted OR= 0.17; $p=0.010$). Care delay was not associated with disease stage (Table 6).

Table 2 Sociodemographic characteristics of 2,242 breast cancer patients

	Number	%
Total	2,242	100.0
Age Group		
<40	319	14.3
40 – 49	868	39.0
50 – 59	606	27.2
60 – 69	257	11.5
70+	177	7.9
Medical service group		
Public	846	37.7
Private	606	27.0
Mixed	790	35.2
Occupation		
Housewife / Retired / Unemployed	928	43.2
Professional	222	10.3
Clerical	519	24.2
Non-clerical / Labour	406	18.9
Self-employed	71	3.3
Education		
Secondary school or below	1,668	75.5
Matriculation or above	540	24.5
Residence district		
Hong Kong Island	504	23.0
Kowloon	789	36.1
New Territories	871	39.8
Islands	23	1.1
Monthly household income (HK$)		
<10,000	285	20.1
10,000-29,999	553	39.0
30,000-59,999	349	24.6
≧ 60,000	232	16.3
Marital status		
Never married	321	14.4
Married / Cohabitating	1,655	74.2
Widowed	128	5.7
Divorced / Separated	127	5.7

Table 3 Clinical characteristics of 2,242 breast cancer patients

	Number	%
Previous benign breast disease		
No	1,924	87.9
Yes	265	12.1
Family history		
No	1,858	84.6
Yes	337	15.4
Prior breast screening habit		
BSE		
Monthly	437	20.3
Non-monthly	1,721	79.7
CBE		
Regular	850	39.4
Non-regular	1,307	60.6
MMG		
Regular	470	21.9
Non-regular	1,676	78.1
USG		
Regular	362	18.1
Non-regular	1,643	81.9
Presenting symptoms		
Lumps (+/- other symptoms)	2,057	92.0
Other symptoms	178	8.0
Clinical tumour size		
<=2cm	975	54.6
>2cm	810	45.4
Clinical nodal status		
Negative	1,778	79.3
Positive	464	20.7
Clinical metastasis status		
No metastasis	1,284	76.0
Regionally metastasis	383	22.7
Distant metastasis	22	1.3

BSE: breast self examination; CBE: clinical breast examination; MMG: mammography screening; USG: ultrasound screening

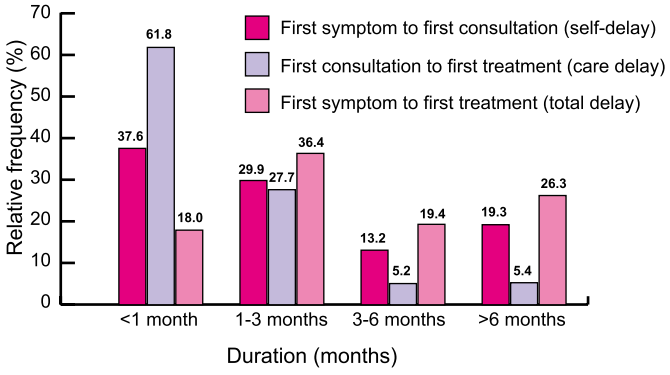

Figure 2 Time spent in different stages of breast cancer diagnosis and treatment, from onset of first symptoms to first treatment, among 2,242 breast cancer patients.

Table 4 Duration of the delays and percent of delayers by medical group.

	Total	Public group	Private group	Mixed group
Number (%)	2,242 (100.0%)	846 (37.7%)	606 (27.0%)	790 (35.2%)
Self delay				
Median (days)	40	61*	31*	36*
Interquartile range (days)	16-117	23-182	14-96	15-92
Number (%) of delayers (≧ 3 months)	729 (32.5%)	355 (42.0%)#	168 (27.7%)#	206 (26.1%)#
Care delay				
Median (days)	20	49*	11*	11*
Interquartile range (days)	8-45	34-82	6-19	6-20
Number (%) of delayers (≧ 3 months)	285 (12.7%)	217 (25.7%)#	34 (5.6%)#	34 (4.3%)#
Total delay				
Median (days)	79	136*	51*	53*
Interquartile range (days)	39-193	75-266	27-124	28-111
Number (%) of delayers (≧ 3 months)	1,023 (45.6%)	573 (67.7%)#	200 (33.0%)#	250 (31.6%)#

* Significant differences (p<0.05) observed between three medical service groups for each type of delays by Median test.
# Significant differences (p<0.05) observed between three medical service groups for each type of delays by Chi Square test.

Table 5 Potential predictors of longer self delayer or care delayer in 2,242 breast cancer patients

	Self delay ≧ 3 months	Care delay ≧ 3 months
	aOR§	aOR#
Occupation		
No (Housewife/retired/unemployed)	1.00	
Professional	1.52 (0.88, 2.63)	
Clerical	1.34 (0.89, 2.01)	--
Non-clerical/Labour	1.59 (1.06, 2.40)*	
Self-employed	1.08 (0.47, 2.47)	
Marital status		
Never married	1.00	
Married/Cohabitating	1.40 (0.92, 2.12)	--
Widowed	3.38 (1.56, 7.33)*	
Divorced/Separated	1.46 (0.75, 2.87)	
Monthly household income (HK$)		
<10,000	1.00	1.00
10,000-29,999	0.89 (0.61, 1.29)	0.60 (0.30, 1.23)
30,000-59,999	0.91 (0.56, 1.47)	0.17 (0.05, 0.59)*
≧ 60,000	1.11 (0.60, 2.05)	0.51 (0.12, 2.16)
Previous benign breast disease		
No	1.00	--
Yes	1.49 (0.99, 2.24)	
Medical service group		
Public	1.00	1.00
Private	0.52 (0.33, 0.83)*	0.13 (0.04, 0.38)*
Mixed	0.57 (0.39, 0.83)*	0.07 (0.03, 0.17)*
Year with first symptoms		
2000 or earlier	1.00	
2001-2005	1.02 (0.52, 1.98)	--
2006-2010	0.72 (0.39, 1.35)	
2011-2014	0.44 (0.22, 0.91)*	
First diagnosis year		
2000 or earlier		1.00
2001-2005	--	0.26 (0.05, 1.25)
2006-2010		0.20 (0.05, 0.81)*
2011-2014		0.23 (0.05, 1.01)

§ Non-significant variables in the multivariate models that were not shown in the above table included age group, education level, residence district, monthly household income, family history of breast cancer, prior breast screening habits (including BSE, CBE, MMG, and USG), and presenting symptoms.
# Non-significant variables in the multivariate models that were not shown in the above table included age group, occupation, education level, residence district, monthly household income, marital status, presence of previous benign breast disease, family history of breast cancer, prior breast screening habits (including BSE, CBE, MMG, and USG), presenting symptoms, clinical tumour size, clinical nodal status and clinical metastasis status.
* p<0.05

From onset of symptom to first treatment (Total delay)

Median total delay time was 79.0 days (Table 4). Around half of the patients (45.7%) had their first treatments at least three or more months after the first sign or symptom (Figure 2). Patients with longer total delay were more likely to be diagnosed at more advanced disease stages (Adjusted OR=1.55; p=0.001) (Table 6).

Conclusion

Study results showed that delay in medical consultation is more common in widows or patients employed in non-clerical/ labour occupations and that delays were associated with later disease stage. We advocate that education towards increased breast health awareness specifically targeting these groups of women can promote early help-seeking behaviour.

The Hong Kong Breast Cancer Foundation's Breast Health Centre is a community-based breast education, screening and diagnostic centre, promoting breast health education in the local community and bridging the service gap between public and private sectors. Services are community focused therefore affordably priced and the financially underprivileged are served free of charge.

Table 6 Delays and risk of having larger and node positive tumours, and late stage breast cancer at the time of diagnosis

	Self delay (≧ 3 months)	Care delay (≧ 3 months)	Total delay (≧ 3 months)
	aOR[§]	aOR[#]	aOR^
Tumour size			
<=2cm	1.00	1.00	1.00
>2cm	1.49 (1.20, 1.85)*	0.81 (0.60, 1.11)	1.32 (1.07, 1.63)*
Nodal status			
Negative	1.00	1.00	1.00
Positive	1.34 (1.09, 1.65)*	0.80 (0.60, 1.08)	1.21 (0.99, 1.48)
Cancer stage			
Early stage (I-IIB)	1.00	1.00	1.00
Advanced stage (III-IV)	1.68 (1.31, 2.16)*	1.30 (0.93, 1.84)	1.55 (1.19, 2.01)*

§ Adjusted for age, screening habits prior to cancer diagnosis, presenting symptoms, medical service group, and care delay
# Adjusted for age, screening habits prior to cancer diagnosis, presenting symptoms, medical service group, and self delay
^ Adjusted for age, screening habits prior to cancer diagnosis, presenting symptoms, and medical service group
* $p<0.05$

Editor's message

This issue intends to complement the "Hong Kong Breast Cancer Registry Report No. 6" on the magnitude and impact of delays in seeking medical attention for symptoms signaling breast cancer, and delays in receiving cancer treatment. The findings suggested that delay in medical consultation is more common in widows or patients employed in non-clerical/ labour occupations and delays in medical consultation or treatment were associated with diagnosis at more advanced disease stages. Increasing breast health awareness among Hong Kong women to shorten delay in cancer presentation is necessary for early detection of breast cancer. Our study aims to provide insights into breast cancer detection to encourage more research and discussion conducive to policy change in synch with our mission to mitigate the threat of breast cancer.

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