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RACP Foundation Research Awards

FINAL REPORT

Project / Program Title		Quantifying the burden of cancer in systemic sclerosis: A data linkage project
Name		Dr Kathleen Morrisroe
Award Received		2018 RACP Australian Rheumatology Association (ARA) & DEV Starr Research Establishment Fellowship
Report Date		12 April 2019
Chief Investigator / Supervisor		Dr Kathleen Morrisroe A/Prof Mandana Nikpour
Administering Institution		St Vincent's Hospital Melbourne
Funding Period	Start Date:	5 February 2018
	Finish Date:	5 February 2019

PROJECT SUMMARY

Australia has the highest reported prevalence of systemic sclerosis (SSc) worldwide (233/million cases in 1999). SSc, an autoimmune disease characterised by vasculopathy and fibrosis, is arguably the most devastating of the rheumatological diseases, with a potential to irreparably damage multiple organ systems and shorten life expectancy by an average of two decades. Until recently, the majority of research has focused on the leading causes of SSc-related death, namely pulmonary arterial hypertension and interstitial lung disease. With the emergence of improved treatment and reduced mortality of these manifestations, interest is shifting to the major cause of non SSc-related death, namely cancer.

The true 'burden' of cancer in SSc remains unquantified, including its epidemiology, health service utilisation and impact on health-related quality of life (HRQoL). Such comprehensive cancer data are essential for designing SSc-specific cancer screening guidelines and for allocation of resources to improve patient care in this devastating disease.

PROJECT AIMS / OBJECTIVES

This study aims to:

(i) to quantify the incidence and prevalence of cancer in SSc.

(ii) to identify clinical risk factors associated with the development of cancer in SSc, such as immunosuppression and individual organ involvement.

(iii) to quantify direct healthcare costs associated with cancer in SSc by hospital, emergency department and ambulatory care utilisation and associated cost in SSc patients with cancer

(iv) to quantify health related quality of life in SSc patients

SIGNIFICANCE AND OUTCOMES

Our study found that systemic sclerosis carries an increased risk of developing cancer, in particular breast, lung, haematological and colorectal cancer. We found a standardised incidence ratio (SIR) of 1.84 (95%CI 1.1-2.7) meaning that SSc patients have a 1.8 fold higher risk of developing cancer compared with age- and gender- matched Australian population controls. Furthermore, the presence of cancer in these patients compared to scleroderma patients without cancer is associated with reduced health related quality of life, survival and an increased healthcare costs.

PUBLICATIONS / PRESENTATIONS

Our manuscript is currently under review with an international rheumatology journal.