



Prof. Emil Adler, the "Father" of PM&R in Israel, in his polio clinic in Jerusalem, 1953

Epidemiological Characteristics of Polio and Post-polio Patients in Jerusalem

Isabella Schwartz, Irina Gartsman, Yechiel Friedlander, Orly Manor, Zeev Weiner.

Department of Physical Medicine and Rehabilitation, Hadassah Medical Center Jerusalem, Israel.



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Introduction

- Between the years 1949-1956 more than 6000 people in Israel suffered from Poliomyelitis, 50% of them were 5 years old and below.
- These people are now at their sixties and many of them developed signs of Post-polio syndrome (PPS).
- The PPS clinic in the department of Rehabilitation in Hadassah Medical Center served approximately 300 patients, Jews and Arabs, since 1997.

Study Aims

- To compare the medical, social and economic status of Polio survivors, Jews and Arabs, with the general population in Israel
- To determine the parameters associated with the severity of Post-polio syndrome in Jerusalem

Methods

- An ongoing prospective cohort study of polio patients attending PPS clinic.
- Demographic, medical, social, and functional data were recorded using a particular questionnaire adjusted to the polio population.
- Comparison to the same data of age & gender matched healthy controls from the Central bureau of statistic of Israel and the SHARE database (1:3).
- The severity of PPS has been determined according to the index of PPS (IPPS) score.

Results

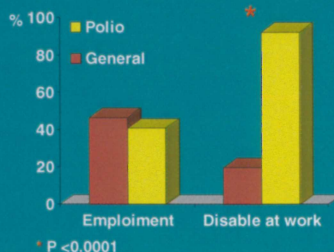
Baseline characteristics

	Polio Patients N=136	Israeli Population N=401	P value
Age	62.3±21.3	Matched Group	n.r.
Male (%)	47.5		
Jews/Arabs (%)	80 / 20		
Married (%)	71.5	77.6	0.15
Having children (%)	85.3	94.5	<0.01
Mean No. of children	3.3±3.7	3.05±3.2	0.3
Mean Years of education	13.4±3.8	12.1±12.6	<0.01
Physically active (%)	44.1	52.9	0.08

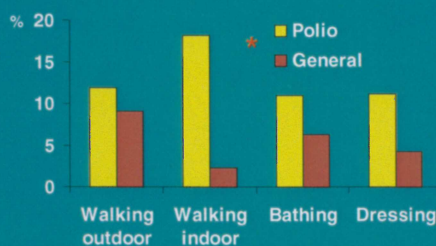
Comorbidities of Polio patients

Morbidity	Polio Patients N=136	Israeli Population N=401	P value
Joint problems	7.4	16	0.012
Back pain	65.2	32.2	<0.01
Headache	50.7	26.7	<0.01
Chronic pain	75	14.2	<0.01
Heart attack	14.9	7	0.005
Heart disease or stroke	48.5	16.2	<0.01
Diabetes	30.9	14.7	<0.01
HTN	48.2	38.7	0.052

Employment and work disability in past week



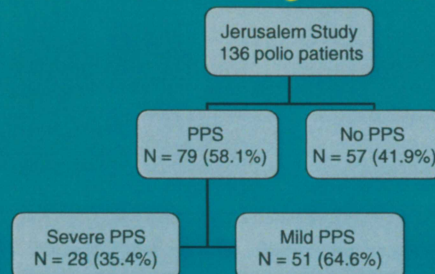
Difficulties in ambulation & ADL functions



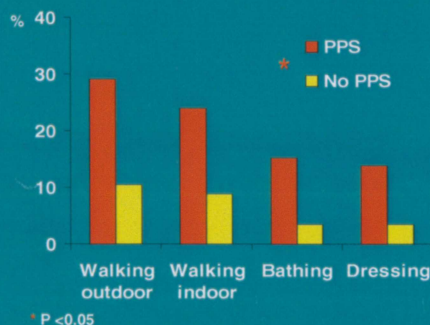
Conclusions

- Polio survivors succeeded to get at least the same level of education as the general population and albeit their disability and advanced age are still in the work circle.
- Polio survivors present higher incidence of comorbidities such as cardiovascular problems, chronic pain and diabetes, reflecting their sedentary life-style.
- 58% of Polio survivor in Jerusalem suffer from Post-polio syndrome and show significant difficulties in ambulation at home and at work and in ADL functions.
- These findings promote the need for specific rehabilitation programs for Polio survivors in order to maintain their function and to prevent further deterioration.

The prevalence and severity of PPS according to IPPS



Difficulties in ambulation & ADL in PPS vs Non PPS



Demographic parameters of PPS vs Non PPS

	PPS N= 79	No PPS N= 57	P value
Age	58.8±15.5	58.7±8	0.087
Female gender (%)	44 (55.7%)	27 (47.4%)	0.3
Education (Y)	13.2±4.6	13.5±3.8	0.57
Married (%)	63.3 %	82.5 %	0.015
CVD	49.4 %	48.2 %	0.89
HTN	48.7 %	48.2 %	0.95
Diabetes	34.6 %	26.3 %	0.3