



POST POLIO SYNDROME – a challenge of today

COPENHAGEN // AUG 31 – SEP 2 2011

Impact of comorbidity and lifestyle related factors on functioning in aging polio survivors

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Program

1 Aging

2 Comorbidity

3 Lifestyle related factors

4 Impact of comorbidity and lifestyle related factors on functioning

5 Conclusion and key points

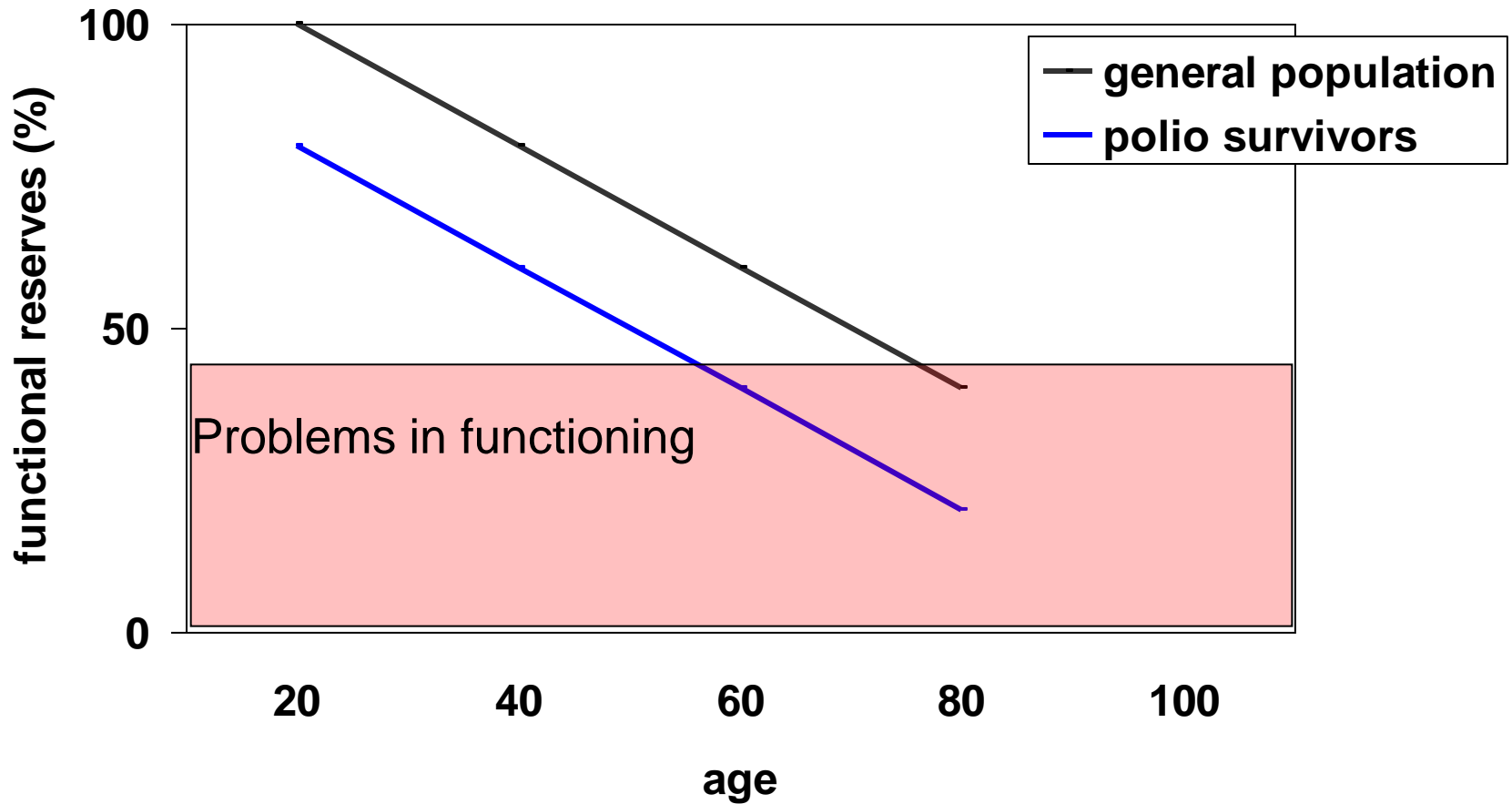
1 Aging

- A complex multidimensional phenomena:
 - Genetic, biological, physical, psychological, social en environmental factors.
 - Aging → decrease in functional reserves and occurrence of several diseases.

1 Aging

- Decrease in functional reserves → decrease in physical functioning.
- Lower social and environmental demands → less active life style.

1 Aging in polio survivors



1 Aging

- Polio survivors age → like general population they encounter diseases next to the polio → comorbidity.
- Polio survivors have paresis → less able to lead an active life style → prone to certain types of comorbidity?

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2 Comorbidity

- Polio survivors have more
 - Disease of the heart and blood vessels.
 - Respiratory disease.
 - Endocrine and metabolic disease.
 - Diseases of the bones, muscles and tendons.

2 Disease of the heart and blood vessels

- Heart attacks.
- High blood pressure.
- Cardiac arrhythmias.

- Possible explanation: lower level of physical activity

2 Respiratory disease

- Late onset respiratory failure
- Chronic pulmonary disease.
- Astma.

2 Endocrine and metabolic disease

- Diabetes.
- Hyperlipidemia.
- Hypothyroidism.

2 Diseases of the locomotive apparatus

- Arthrosis.
- Osteoporosis.
- Increased risk of fractures.

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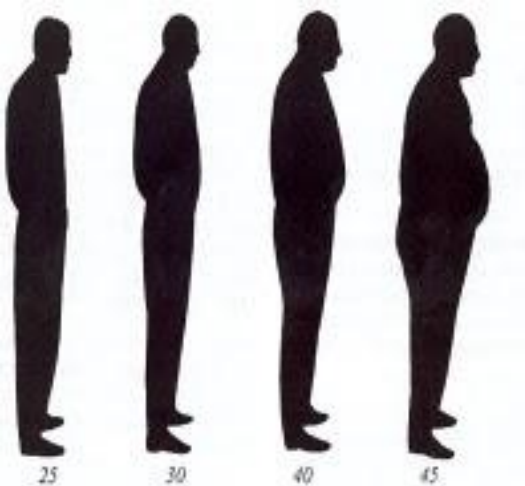
5 Conclusion and key points

3 Lifestyle related factors

- Daily physical activity
 - Lower in polio survivors .
 - Associated with muscle strength and experienced pain.

3 Lifestyle related factors

- Excess body weight
 - Small study: polio survivors have overweight.
 - Also in broader population?
 - How to measure overweight?



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4 Impact of comorbidity on functioning

- Few studies have focussed on the influence of comorbidity on physical functioning in polio survivors.
- CARPA study.



4 CARPA study

- Study with 5 years follow up.
- 168 patients aged 45-85 with late onset sequelae of poliomyelitis.
- To study the course of physical functioning and to identify prognostic determinants of change in functioning, with emphasis on the impact of age and comorbidity.

Results of CARPA study

- Slow decline in physical functioning in accordance with other studies.
- Prognostic factors for course of functioning:
 - Comorbidity.
 - Extent of paresis

4 impact of comorbidity on functioning

- More comorbidity → lower level of functioning.
- More comorbidity → faster decline in functioning.

Patient	Gender	age	Arm strength	Leg strength	Comorbidity score	Total FIM at baseline	decline FIM
1	F	65	42	45	0	118	2
2	F	65	42	45	10	117	3

4 Impact of lifestyle related factors on functioning

- Polio survivors reporting regular physical activity → higher functional level.
- Weight gain → risk factor post polio syndrome.

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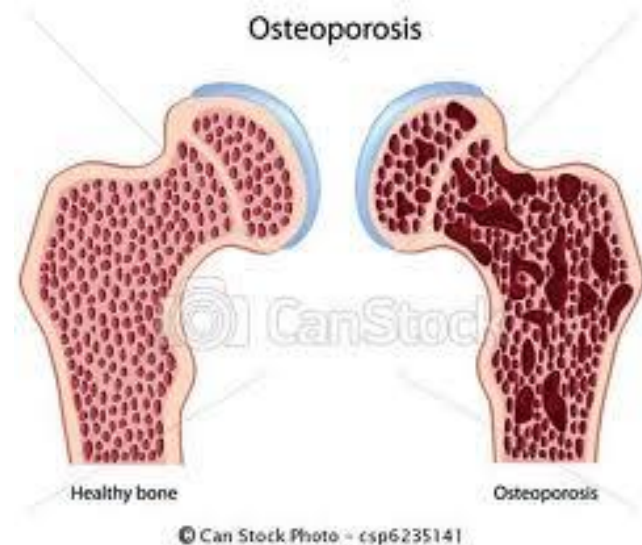
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5 Conclusion

- A higher level of comorbidity → lower level of physical functioning and a faster decline in physical functioning in polio survivors.
- The lifestyle related factors physical inactivity and excess weight are associated with a lower level of functioning in polio survivors.

5 Treatment

- Screening on
 - Diabetes, hyperlipidemia, hypothyroidism.
 - Osteoporosis.
 - Lung function.



5 Treatment

- Information on
 - Weight control.
 - Daily physical activity.
 - Prevention of overload of muscles.
 - Behavioural change.





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