Editorial

A Lost Piece of Puzzle

Nazish Iqbal Khan

Pathophysiology Research Unit, Department of Physiology, University of Karachi Karachi

doi:10.46568/bios.v2i2.43

Chronic disease phenomenon are one of the major cause of death worldwide and according to CDC (Center of Disease Control), USA, lack of sufficient physical activity is the fundamental etiological factor for most of these phenomenon [1]. Although importance of physical activity is well established now a days but it is least appreciated and considered while scheming treatment / prevention strategies for these chronic phenomenon as compared to dietary modifications and pharmacological interventions [2]. *Physical activity* is considered as any body movement that involves contraction of skeletal muscles, increased body's energy expenditure and that promote health [3]. Whereas *physical inactivity* is lack of physical activity less than which is required for maintenance of body's organs and systems functional capacity and for prevention of premature death.

Disease phenomenon are managed at primary, secondary and tertiary levels. Primary management schemes although consider health promotion factors including consumption of healthy diets and participation in health related activities. But this consideration gradually becomes forgotten for secondary and tertiary stage prevention levels. Secondary prevention level refers to the identification and control of pre-symptomatic disease and this is the stage from where pharmacological interventions gains importance. And then tertiary prevention level only surrounds aggressive pharmacological / surgical interventions that are used to slow the progression of disease phenomenon toward disability and death at this stage [4].

Increased physical activity benefits physiological mechanisms and homeostasis in many ways and itself rarely causes chronic conditions. Research studies already confirmed that almost all major modifiable risk factors for chronic phenomenon can be controlled non-pharmacologically by therapeutic life style changes and increased physical activity can be an essential component of it [5].

With steady increase in the prevalence of chronic disorders and their related risk factors not only in developed but also in the developing countries of the world [6] there is a need of recalling the role of increased physical activity. The whole paradigm of research in the field of clinical therapeutics must centralize its focus toward increased physical activity rather than just relying on dietary and medicinal interventions.

Some vital concepts of this paradigm that must be addressed include:

- Therapeutic importance of non-pharmacological (physical activity based) interventions in treatment of chronic disease mechanisms.
- Relevance of the effects of increased physical activity as a sole mode of treatment for chronic disorders with documented dietary and medicinal interventions.
- Identification of major hurdles in acquiring healthy physical behaviors and solutions to these obstacles.
- Response of different physiological mechanisms during increased physical activity to medicinal and dietary modifications.
- Identification of strategies to change general social behavior toward physical activity.

Biosight 2021; 02(02): 1-2

Key words: Physical Activity, Chronic Diseases, Therapeutic life style changes, Physical therapy

References

- 1. Rodulfo JIA. Sedentary lifestyle a disease from XXI century. Clin Invest Arterioscler 2019; 31(5): 233-40.
- 2. Sallis R. Exercise is medicine: A call to action for physicians to assess and prescribe exercise. Physician Sportsmed 2016; 43(1): 22-6.
- 3. SHahidi SH, Stewart WJ, Hassani F. Physical activity during COVID 19 quarantine. Acta Paediatr 2020; 109(10): 2147-8.
- 4. Duclos M. What benefit of physical activity in tertiary prevention? La Revue du Praticien 2020; 70(3):273-8.
- 5. Fletcher GF, Landolfo C, Niebauer J, Ozemek C, Arena R, Lavie CJ. Promoting physical activity and exercise: JACC health promotion series. J Am Coll Cardiol 2018; 72(14): 1622-39.
- 6. Roth GA, Mensah GA, Johnson CO, Addolorato G, Ammirati E, Baddour LM, *et al.* Global burden of cardiovascular diseases and risk factors, 1990-2019: Update from the GBD 2019 study. J Am Coll Cardiol 2020; 76(25): 2982-3021.

Nazish Iqbal Khan

Department of Physiology Pathophysiology Research Unit University of Karachi Karachi

Email: nazzik@live.com