Population ageing worldwide raises many questions, above most, are those people living longer going to remain independent and active as they age? The word “active” refers to continuing participation in social, economic, cultural, and spiritual affairs, not just the ability to be physically active or to participate in the labor force. Older people who retire from work, ill or live with disabilities can remain active contributors to their families, peers, communities, and nations. Active ageing aims to extend healthy life expectancy and quality of life for all people as they age.

This conference was aiming to address the possibilities of achieving active ageing and better quality of life of older individuals.

The conference included a number of professionals with recognized expertise in the wide field of elderly care.

Summaries and Recommendations

The invited lectures, topical discussions, and posters presented at the conference and the invited manuscripts served as the basis for the following summary and recommendations.

Suffering with Alzheimer's disease

“Man fools himself; He prays for a long life, yet he fears an old age.” This was the opening quotation of Prof Ahmed Okasha lecture. As we grow, we dream of enjoying the harvest of our sacrifices, and perpetuating the successes that we created or we were granted. Nevertheless, we fear many dreadful conditions that graphically chop our hopes, and instead of successes they cast agonizing disability. One of the most dreadful dangers is Alzheimer’s disease. The most feared part of this disease is not cognitive decline, rather it is the lack of proper understanding and handling of this decline! With the current rate of population greying, disability due to Alzheimer’s disease must be given the proper attention, and training of health professionals must address relevant changes in personal lives of patients and their families as well.

Recommendations for the future and future research:

Both health care professionals and patient’s caregivers must be well trained for proper dealing with behavioral and psychotic symptoms of Alzheimer’s disease together with the biological changes and clinical progression. Guidelines must be laid down for proper management and control of symptoms.

Health promotion: Across ages:

The challenges of an ageing population are the double burden of disease, the increased risk of disability, providing care for ageing populations, the feminization of ageing, ethics and inequities, and the economics of an ageing population. Health promotion is a process which empowers families and communities to improve their quality of life, and achieve and maintain health and wellness. The ideal model of health promotion is by adopting health education,
prevention, and health protection. Yet the public health agenda on population ageing is poorly developed.

**Recommendations for the future and future research:**

Forcing effort to shift strategic planning away from a “needs-based” approach (which assumes that older people are passive targets) to a “rights-based” approach that recognizes the rights of people to equality of opportunity and treatment to all other age groups in all aspects of life as they grow older.

- Empower primary health care approaches for the elderly and lifestyle modification.

**Chronic disease burden:**

Cardiovascular diseases (CVD), diabetes mellitus, and degenerative joint disease are three major chronic diseases that affect elderly population and hinder their aging successfully.

Preclinical diagnosis of osteoarthritis can be established within the first month after joint injury. Biochemical markers for diagnosis are serum Hyaluronic acid, Osteocalcin, Cartilage glycoprotein 39 (YKL-40), Cartilage Oligomeric Matrix Protein (COMP), C-Telopeptide of type 1 collagen (CTX-1), and C-Telopeptide of type 2 collagen (CTX-2). MRI also is able to detect pathologic changes at earlier stage of the disease.

**Recommendations for the future and future research:**

- Adherence to the general rules and guidelines for managing CVD in elderly as they are the same for younger patients yet elderly patients are at high risk for both thrombotic and bleeding complications.

- Care should be given to drug dosing, drug interactions and more risky drugs.

- Every diabetic elderly should be assessed comprehensively due to the vast major geriatric syndromes that accompany diabetes (i.e. dementia, depression, frailty, falls, urinary incontinence, osteoporosis, and sarcopenia) for the sake of early intervention and better quality of life.

- Early diagnosis and early intervention for early stages of osteoarthritis makes it more amenable to modification, including halting or slowing the disease process to prevent recalcitrant, disabling, and more costly late stages of the disease.

**Mental and psychological wellbeing:**

Mental health is defined as a state of well-being whereby individuals recognize their abilities, are able to cope with normal stresses of life, work productively and fruitfully, and make a contribution to their communities.

There is a trend in Western societies to expect the right to feel happiness, and a need to restrict the range of negative emotions that are considered “acceptable and normal”.

**Recommendations for the future and future research:**

- Inforce focusing on positive mental health

Reorient psychiatric practice to expand individual’s boundaries to articulate with the living environment, not only to focus on not only on the understanding or development of psychiatric or mental diseases.

**Critically ill elderly:**

In recent years, there has been a global increase in the incidence of elderly patients admitted to intensive care units (ICUs). Early recognition of patients at high risk of mortality and other negative health outcomes is therefore needed.

**Recommendations for the future and future research:**

- ICU outcome indices are available, and should be used to predict patients’ risk level to develop various complications.

- Comprehensive research is recommended for each condition separately to have more insight for improving ICU outcomes.
**Social aging:**

Retirement is a major life event that leads to major changes in elderly life especially the social one. Achieving successful retirement is crucial for active and healthy aging.

**Recommendations for the future and future research:**

Retirement programs are like hobbies projects; they should be planned by elderly not planned for them. Elderly need to be aware with retirement preparatory program and their attitude towards retirement need to be addressed on a large base.

**Sensory impairment: A major barrier:**

Sensory impairment is a major barrier for achieving active and healthy aging. The world exists all around us, but we only know it as good as our five senses can tell us about it. Olfactory sensory affection gain a little attention compared to other sensations like vision and hearing yet it has been linked to neurodegenerative diseases that are common in elderly. Parkinson’s disease may start in the olfactory system before the damage in the basal ganglia. Olfactory detection losses in Parkinson disease are independent of cognitive status. Hyposmic relatives of Parkinson’s disease patients are more likely to develop PD than normosmic relatives.

In Alzheimer’s disease degeneration occurs in the entorhinal-hippocampal-subicular complex. Olfactory affection can proceed the cognitive decline in an Alzheimer patient. Persons with mild cognitive impairment who don’t suffer olfactory dysfunction are less likely to progress to Alzheimer’s diseases and olfactory dysfunction in Alzheimer’s disease correlates with disease progression.

**Recommendations for the future and future research:**

More researches are needed to confirm the association between olfactory dysfunction and neurodegenerative diseases especially Alzheimer’s.

Assessing olfaction while performing comprehensive geriatric assessment should be generalized.

**Therapeutics in elderly:**

Significant proportions of patients with liver cirrhosis due to HCV infection develop hepatocellular carcinoma, and have to undergo hepatic resection. The compromised cirrhotic liver cannot withstand further removal of hepatic tissue, thus, leading to postoperative complication and death. Preoperative autologous bone marrow stem cell transplant proved a favorable outcome of liver resection in cirrhotic patients. When patients with liver cirrhosis at Child’s stages A and early B receive autologous bone marrow stem cell transplant before liver transplantation, they showed postoperative improvement in different parameters as liver function tests and hepatic volume. The majority of cirrhotic patients with HCC are elderly, and this procedure is almost their only key to limited resection.

**Recommendations for the future and future research:**

Starting an intense research on the outcome of such procedure on elderly, as they are one of the most vulnerable populations for hepatocellular carcinoma.

**Healthy eating:**

Geriatric general and oral health are in a bidirectional relationship. Oral health is not only utilized for mastication and speech, but it is also a window to the outer world and a self reminder of body condition that engraves our self-image, social (intimacy and communication), and physiologic (appearance and self-esteem). The common oral problems in elderly are oral squamous cell carcinoma, reactive benign oral lesions, oral lesions secondary to xerostomia, osteomyelitis, and potentially malignant lesions. The most common geriatric problems that affects oral health in elderly are dementia, respiratory infection, osteoporosis, stroke, heart disease, and uncontrolled diabetes.
Recommendations for the future and future research:

Oral health and wellness’s should be included in the screening index of active ageing, that measures the health status of several biological and social functions for elderly. Elderly people need to be aware of the importance of checking the health of their oral cavity regularly.

Frailty and physical fitness: integrated approach:

Frailty is a geriatric syndrome that combines sarcopenia, malnutrition, chronic inflammation, low physical activity and exhaustion. It has its major impact on aging successfully. Frailty is not a single disorder, but rather a functional state rendered by depletion of the physiological reserve of multiple biological systems, which explains its importance as a marker for increased risk to mortality and all complications in elderly, and translated practically as the closing note, played to close the final chapter of individual’s life. And as such, it may represent the last chance for interventions to prevent (or delay) death!

Recommendations for the future and future research:

Research programs are needed to detect the biological pathways of frailty and sarcopenia, and elicit potential portals for interventions to halt these syndromes (nutrition, vit. D deficiency, exercise, chronic inflammaging) as they are major obstacle in achieving successful aging.

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