

**VISUAL ART IN AZHEIMER DISEASE:
A TOOL FOR THERAPY, RESEARCH OR BOTH ?**

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Summary

A relevant improvement in understanding Alzheimer disease (AD) has been obtained in the last years, but no therapy is available yet to reverse its progression .

Social retirement, which is a common symptom of the disease, contributes to the cognitive decline, so that all the techniques potentially useful in modifying this aspect are of great importance. Among them visual art has been proposed on the assumption that it stimulates the emotional functions that are spared in the patients for longtime, encourages the social relationships and may be a way to communicate. We report in the first part of the paper some experiences about this topic.

The second part of it concerns visual art as a possible tool for improve our understanding of AD. The analysis of painters affected by it has shown that, even if their technical abilities deteriorated progressively, work might be shifted towards surprising directions. At the meantime, visual art seems to give an insight about the patients perception of their external as well their internal world.

KEY WORDS: Alzheimer disease, Art, Spatial Disturbance

Introduction

Even if a significant improvement has been obtained in recent year about Alzheimer disease (AD), no therapy is available yet to reverse its progression. Ach inhibitors, in fact, even if they provide a stabilization of the cognitive functions for a certain period are not effective in all the patients (1-11). Furthermore, the side effects prevent their employ in some of the patients. AD represent, therefore, one of the biggest challenge for the future, and it is not probable that in the near years a resolute therapy will be found (1-11). Furthermore, the disease will be more and more frequent as the consequence of aging. Therefore, a great attention must be given to those aspects that might be useful in stimulating the brain functions spared by the degenerative process. Visual art seems to be one of these: many experiences have been reported about this topic and we will briefly summarize the most recent ones. But visual art has been proposed under another perspective, that is as a research tool in Alzheimer disease (1-11). The hypothesis has been advanced through the analysis of the work of some artists that developed the disease. The analysis of their paintings before and during it, gives support to the idea that, in spite of the obvious deterioration of the technical abilities, paintings are a tool for better understanding some aspects of the disease as the emotions and the feelings of the patients during it, the awareness of the disease, and the possibility of a dramatical change in the work that may be shifted towards surprising new directions.

Methods

a) Visual Art as a Therapeutical Tool

Art therapy has been used for decades as a non medical way to help patients affected by different pathologies (1-11). Music has been widely employed and visual art too in many conditions as focal brain damaged, cancer patients, and so on. In Alzheimer disease art has a more evident theory supporting its application. In fact, the progressive cerebral degeneration spares for longtime the frontal regions and particularly their medial parts, that are related to the emotional functions. It has been recently demonstrated, furthermore, that the circuits involved in the aesthetical appreciation are spared too, as they are mainly related to fronto orbital cortex (1-11). Looking at paintings, sculpture and so on, therefore, might activate systems that are preserved and at the meantime widely connected with other cerebral areas so that the brain might be globally stimulated. Many neurologists think therefore that art is a powerful way to engage patients and consequently programs based on it have been developed in many countries

Among them, the New York Museum of Modern Art (MoMA), in collaboration with the promoters of the "Artist's for Alzheimer" project, has started in 2004 the "Meet me at MoMA" program, which includes guided tours and practical activities directed to the patients. The staff of the MoMA and the neurologists taking care of the patients have reported a small but palpable improvement of the patients. Depressive symptoms are ameliorated, subjects with none familiarity in art may show a genuine interest in it, and seeing paintings encourages in any case the social relationships.

Also, the Fine Arts Museum in Boston, has opened his galleries to Alzheimer patients providing guided tours in the days where the museum is closed for public.

In other countries, AD patients participate to competitions that have been created to encourage painting, sculpture and literature. In Brazil, for example, the Brazilian Association for Alzheimer has developed a competition reserved to patients at the first stadium of dementia.

In Italy, the Redaelli Institute in Milan employs visual arts among its programs and psychologists and neurologists encourage it "as they have a particular emotional charge". What seems, however, more useful, is to actively engage the patients, asking them not only to see but mainly to participate to conversations expressing their opinion about what they are looking at.

b) Visual Art as Research Tool

Carolus Horn, William Utermohlen and William De Kooning are three contemporary painters, who had developed AD. The analysis of the modifications of their work during the disease are interesting in the aim to show that visual art may be a tool to understand some aspects of the disease.

Carolus Horn (1902-1992), has been the author of many well known drawings for Opel, Esso and Coca Cola and has been widely appreciated for his elegant designs and a perfect mastership of the drawing technique



Figure 1:
C. Horn, poster for Opel publicity

During the years, he made also many leisure paintings as those reported in figure 2.

“The Rialto Bridge” was a preferred subject repeatedly reproduced before and after the beginning of the disease. It gives, therefore, the possibility to compare the works he had done before and during AD. The pictures demonstrate that geometrical and symmetrical shapes gradually substituted the detailed representations made before the disease, where perspective was perfectly reproduced and shadowing was a characteristic. Simplifications are evident, reproductions are flat and spatial relationships no more respected (fig 2 3 4).

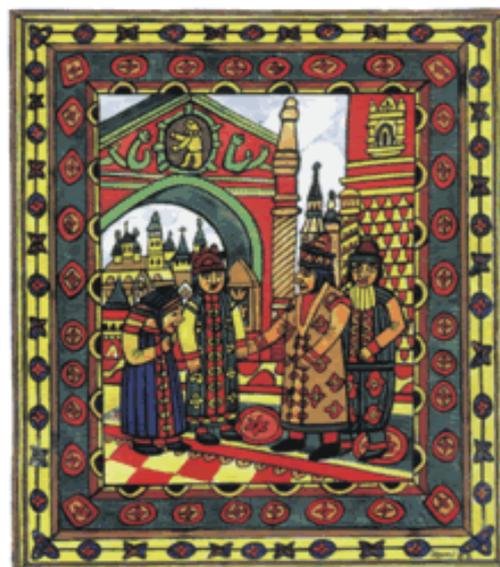
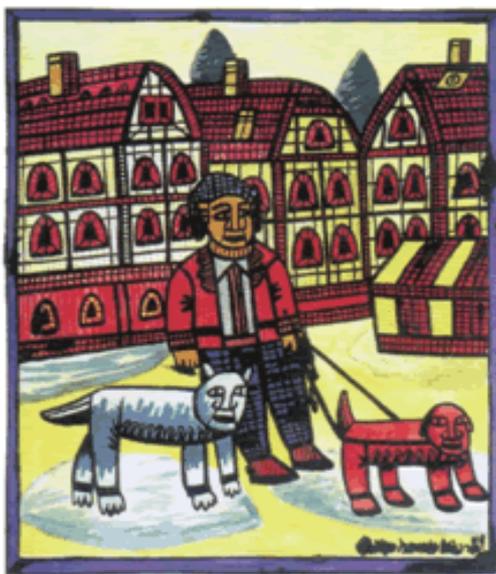




Figures 2- 3- 4:

C. Horn, The Rialto Bridge painting before the disease (top) and in its mild stage (bottom)

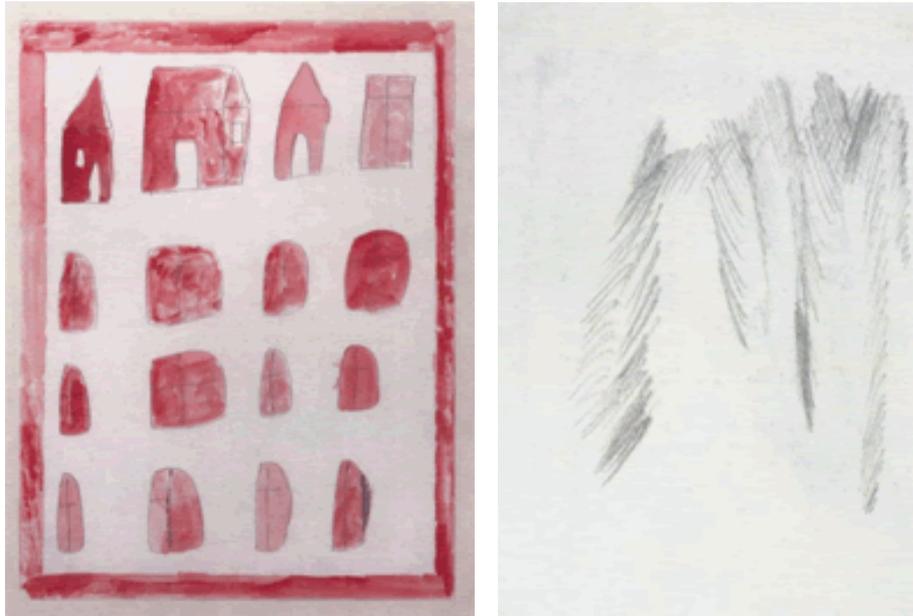
Later, the paintings changed and appeared images inserted in frameworks constituted by small ornamental elements, that may be considered, from a neuropsychological point of view, a sort of perseverative behaviour, which is characteristic, indeed, of the moderate stage of AD. Human beings became rigid, “woodenlike”. Animals have human faces. The artist seems, furthermore, painting from memory the Russian icons that he had actively collected in the past.



Figures 5-6:

C. Horn, drawings during the AD moderate stage

In the severe stage, he reproduced only single elements, of one colour, and later on only lines. However the structure of the drawing seems, nevertheless, be researched.



Figures 6-7:
C. Horn paintings during the severe AD stage

William Utermohlen (1933) has been one of the leaders of Pop British Art. Always interested in portraits he has frequently painted himself. Figures 8 , 9 are the examples of selfportraits he did before the disease.

In the series “ fragments of conversation” the first signs of the disease had already appeared: the space was less organized and oversimplified. When AD was diagnosed, he decided, together to his wife, to document its progression. and he painted only self portaits. Here, his anxiety, fear, rage and, later on, confusion are well recognizable (figures 10,11,12,13). The space behind is indistinct, sometimes there is only a black surface, suggesting isolation and despair. More than any word these pictures explain what was happening to him.



Figure 8-9:
W. Utermohlen selfportraits before the illness



Figures 10-11-12-13:
W. Utermohlen, self-portraits during AD (1996, 1997, 1998,1999)

Willem De Kooning (1904-1997) has been the most important painter of the Abstract Expressionism. “Action Painting” was the term indicating his work and emphasizing the importance of actions in his painting activity to transmit his emotions into the drawings.



Figures 14-15:
W. De Kooning, *Woman I*, 1950-52 (left), and *Composition*, 1955 (right)

In the 80th, when the disease appeared, the strong lines became gradually softer, the sharp angles disappeared, and the vivid colours became clear and delicate. Gradually, the forms were more clear and “a freedom never seen before, lyrical, immediately sensual, and exhilarating” (3-5) appeared. Paintings were so different than those made before that some critics refused this work arguing that De Kooning was “no more himself”. At the same time, his production increased more and more: while previously he did very few paintings, from 1983 to 1986 he painted almost one picture a week.



Figures 16-17:
W. De Kooning, *Untitled V*, 1978 (left) and *figures untitled*, 1981 (right)



Figure 18:
W.De Kooning, *Untitled*, 1988

Results

We have considered visual art from two perspectives, as a possible therapeutical tool and as a possible research tool in Alzheimer disease.

Regarding the first aspect, looking at paintings and expressing the emotion they suscite seem to be useful for AD patients, so that this activity is increasingly employed as a therapeutical tool in different contexts . However, the efficacy of visual art therapy requires to be validated. Indeed, no definite studies have been published until now so that the results seem to be more anedoctical and no definite evaluations are available

The second aspect is a more complex topic: may we understand more about AD through visual art? The neuropsychological impairment consequent to AD may indeed, differently affect the artistic production. We may find the loss of the visuospatial abilities, as in the case of C. Horn, the well known designer, who showed clearly the progression of the spatial impairment.

As it was predictable, the perspective was gradually lost and the drawings became flat as a consequence of the spatial disorganization and other aspects appeared later, as the hypersimplifications of the shadows as well the windows of houses are a simplification. A sort of stereotypes, and the human faces attributed to the dogs, that appear in the latest paintings, reflect probably a failure in the imaginative functions. No emotive involvement is shown, but, as the clinical history of C. Horn is poor, we don't know if there was aware of the disease.

The case of W. Utermohlen is absolutely specular. Being aware of the disease, he decided to represent it. Through his paintings he reveals rage, suffering and the progressive isolation. Having been always interested in the representation of feelings and emotions, he moreover developed these aspects. His last paintings are perhaps his best work.

His obsessive need to verify his paintings disappeared and he painted much more works in this period than in all his life.

Conclusions

Art and in particular visual art may be a tool for stimulating the emotional features that are preserved in the patients with AD and may be, therefore, useful in some in the aim of activating globally their cognitive abilities. Seeing pictures, it is predictable, however, that the patients in the mild stage may benefit of it, while those in more severely affected, where the perceptual abilities are seriously damaged, may be confused looking at pictures, that could possibly decrease their self confidence. Therefore, visual art might be considered until now an aspecific tool, possibly useful only in some cases.

Regarding the second aspect, art is an effective tool not only for analysing the spatial impairment that is a common sign of the disease, but also in understanding the awareness of it. The feelings related to it may be more expressed through visual art more than any word can do. Visual art may also be shifted during the disease towards surprising directions.. William De Koonig, whose personal and artistic history is the symbol of inquietude, seems to find through the disease a serenity and a joy of life that he had never achieved before

Visual art may show, therefore, not only the impairments consequent to the degenerative process but also the differences from case to case and it is therefore a real tool for the doctors taking care of the patients as well for the caregivers who assist them. For some of the patients, the artists, furthermore, visual art may be something more important than anything else: their personal bridge towards the reality, whatever kind of reality it may be.

References

1. Bressan L. Il malato di Alzheimer. È possibile un moderno approccio rieducativo con l'arte e la musica? *La Cà Granda* 2001; 3:25-29
2. Canu E, Piras M, Martingale C. Alzheimer's disease and neural network freezing: Creativity and cognitive incompetence in a painter with Alzheimer's dementia. Paper presented at the 17th Congress of the International Association of Empirical Aesthetics, Takarazuka, Japan, 2002.
3. Chatterjee A. Universal and relative aesthetics: A framework from cognitive neuroscience. Paper presented at the International Association of Empirical Aesthetics, Takarazuka, Japan, 2002.

4. Chatterjee A. Prospects for a cognitive neuroscience of visual aesthetics. *Bulletin of Psychology and the Arts* 2004; 4: 55–60.
5. Chatterjee A, Strauss ME, Smyth KA, Whitehouse PJ. Personality changes in Alzheimer's disease. *Archives of Neurology* 1992; 49: 486–491.
6. Espinol H. de Kooning's late colours and forms. *Lancet* 1996; 347: 1096–1098
7. Garrels G. Three toads in the garden: Line, color, and form. In: AAVV. Willem de Kooning. *The late paintings 1980s*, Art Pub Inc 1995; 9–37.
8. Kennedy R. The Pablo Picasso Alzheimer's Therapy, *The New York Times* 2005, October 30.
9. Maurer K, Frolich L. Paintings of an artist with progressive Alzheimer Disease. *Alzheimer Insights online*; vol 6 n.2.
10. Sahlas DJ. Dementia with Lewy bodies and the neurobehavioral decline of Mervyn Peake. *Arch Neurol.* 2003 Jun; 60(6):889-92
11. Storr R. *A Painter's Testament : De Kooning in the Eighties*, Museum of Modern Art, New York; da www.moma.org

Figures were found on websites by www.google.it