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RESEARCH ARTICLE

MULTIDISCIPLINARY COLLABORATION THE 'GOLD STANDARD' OF MEDICAL PRACTICE

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Abstract

The success of the medical act depends on a team approach to the patient. The multidisciplinary approach has a key role in diagnosing and treating the disease, in decreasing mortality and morbidity, increasing the patient's quality of life. We present the case of a 58-year-old right-handed female patient known to have stage IIIB operated, chemo- and radio treated left breast neoplasm and operated left fronto-parietal brain tumor (adenocarcinoma metastasis). Approximately 4 months after the intervention, the patient presents an epileptic seizure, predominantly motor dysphasia and slight right brachial paresis. Brain computed tomography (CT) and magnetic resonance imaging (MRI) scan leftfronto-parietal tumor recurrence. Neurosurgical intervention is decided and subtotal ablation of the tumour formation is performed. The patient has a favourable evolution without over-added neurological deficits. A team of neurologist, neurosurgeon, radiologist, pathologist, radiotherapist, oncologist, anaesthesiologist was involved in this evolution. The team approach to the patient is the key to success, with the patient needing the opinion of each individual doctor.

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Introduction:-

Breast tumors represent various aspects of pathology in which diagnosis and therapeutic attitude involve a high degree of medical responsibility. (1)

It is worth remembering that it is often too easy to overlook a breast tumour that is considered benign without the correct treatment being indicated, so that it frequently develops - either without any treatment or with hormonal treatment - into breast cancer. (1)

In our country 2/3 of the patients present in stages III and IV, a situation that can be explained on the one hand by the insufficient oncological education of the population, and on the other hand by the non-application of early detection measures of this localization as provided for in all cancer programs in the world and in our country. (2)

At a distance, breast cancer can metastasize via the lymphatic and blood pathways, most commonly to the lung, bone, liver, brain, adrenal, ovary, skin, etc. (2).

All systemic cancers can metastasiseintracranially and to the cranial bones. It is most common in breast cancer, lung cancer and melanoma. (3)

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Both in terms of their share of intracranial expansive processes and the diagnostic and therapeutic problems they raise, brain metastases are an important issue in neurosurgery. (4)

Clinical case

A 58-year-old right-handed female patient with known stage IIIB operated left breast neoplasm (radical left mastectomy), chemo- and radio-treated, operated left fronto-parietal brain tumour (adenocarcinoma metastasis), presenting with an epileptic seizure, predominantly motor dysphasia and slight right brachial paresis - approximately 4 months after the last operation.

Clinical examination: General condition good; normal appearing integuments and mucous membranes; normal adipose tissue represented; lymph node system - superficial lymph nodes not palpable, painless; urethral catheter - no respiratory system - normal conformed chest; respiratory rate = 15 - vesicular murmur present - no bronchial rales; no signs of respiratory failure; cardiovascular system - pulse = 76, blood pressure (BP) = 130/60 mmHg - rhythmic heart sounds - no signs of heart failure; digestive system - abdomen supple, painless on palpation - abdomen mobile with respiratory movements - liver, spleen within normal limits - bowel transit preserved; renal system - kidneys not palpable - physiological urination.

Neurological examination: uncharacteristic attitude; meningeal signs - no meningeal signs; gait-orthostatic position: possible; motility: slight right brachial paresis ; coordination - normal; skin reflexes: plantar flexion bilaterally; abdominal reflexes present bilaterally; osteo-tendinous reflexes: present bilaterally, symmetrical; tenderness: no objective changes; sphincters: continent; cranial nerves: I-XII normal clinical relationships; psych/speech: patient temporally and self oriented. Predominantly motor dysphasia.

Local examination: supple scar post left mastectomy.

Psychological counseling: the patient received psychological counseling.

Electrocardiogram (EKG): sinus rhythm, left ventricular hypertrophy with secondary repolarization disorders.

Biological: mild hypokalemia, mild hyponatremia.

Chest X-ray: incomplete chest, asymmetrically framed, rotated to the right. Left hemidiaphragm ascended (aerocolic).

Computed tomography (CT) and magnetic resonance imaging (MRI) of the brain scan left fronto-parietal tumour relapse. Neurosurgical intervention is decided and subtotal ablation of the tumour formation is performed - tumour remnant adherent to the sylvian vein vessels.

After surgery, elements of motor aphasia and right hemiparesis slowly improve under instituted treatment.

Discussions:-

Neuro-oncological emergencies are a diverse group of disorders that frequently occur in patients with brain tumors and other cancers. They are most often caused by the direct effects of the tumour on the nervous system, but can also occur as a result of treatment, infection, metabolic disturbances, medication side effects and other mechanisms. (5)

Depending on type, location and associated complications, tumor presentation and management can vary widely. (6)

Thus brain metastases are by far the most common cause of brain tumors in the general population. (7)

What distinct anatomic compartments or structures may be involved by metastases? Bone (cranium or vertebrae) dura, subarachnoid space, the subpial and perivascular (Virchow-Robin) spaces, central nervous system (CNS) parenchyma, choroid plexus, pineal gland, and pituitary gland. The involvement of some anatomic compartments is stereotypic for some tumors (e.g., breast carcinomas frequently metastasizes to dura). (8)

What is the approximate ratio of supratentorial to infratentorial metastases? Which primary site tumors more commonly metastasize to infratentorial locations? The ratio is approximately 3-4 to 1. Pelvic organs (colorectal,

ovarian, and uterine carcinomas) and breast are overrepresented in metastases of the infratentorial compartment/posterior fossa. (8)

In general, brain metastases form a circumscribed mass, usually solid but sometimes ring-shaped (e.g. cystic), causing little glial reaction but much regional vasogenicoedema. Often only oedema is visible on imaging until contrast administration reveals small tumour nodules. (9)

Most patients present with headaches, behavioral change, and focal neurologic deficits such as weakness, numbness, gait unsteadiness, and visual symptoms; 10% to 20% present with seizures; 5% present with intracranial haemorrhage. (10)

Several factors should be considered, including performance status, age, the extent of the primary cancer and extracranial disease, and histologic subtype. (11)

A team approach to the patient is the key to success in understanding the pathological complexity and making a treatment plan. (12)

Conclusions:-

The success of the medical act depends on a team approach to the patient.

The multidisciplinary approach plays an essential role in diagnosing and treating the disease, decreasing mortality and morbidity and increasing the patient's quality of life.

A team of neurologist, neurosurgeon, radiologist, pathologist, radiotherapist, oncologist, anaesthesiologist was involved in the favourable evolution of the case.

A team approach to the patient is the key to success, with the patient needing each doctor's opinion individually.

References:-

1. Prişcu A. Surgery vol. 1 – Didactic and pedagogical Publishing House, R.A., Bucharest, 1992, p. 490
2. Angelescu A., Dragomirescu C., Popescu I. Surgical Pathology - Celsius Publishing House, 1997, p.3-7
3. Ion V., Georgescu Ş., Câmpeanu A., Tufănoiu E., Tudoran C., Lupescu I., Clinical Neurology - ALL Publishing House, Bucharest, 1999, p. 514.
4. Constantinovici A., Ciurea AV. Practical guide of neurosurgery – Medical Publishing House, Bucharest, 1998, p. 275
5. Sid MS., Kevin MK Principles and practice of emergency neurology – Medical Publishing House, Bucharest, 2012. p. 269
6. Jagoda AS., Lewandowski CA., Manual of neurologic emergencies – Wolters Kluwer Publishing House, Philadelphia, 2022, p. 105
7. Kister I., Biller J., Top 100 Diagnoses in Neurology – Wolters Kluwer Publishing House, Philadelphia, 2021, p. 356
8. Joseph SK., Eli MM., Neurology secrets – Elsevier Publishing House, Philadelphia , 2017, p. 492
9. Adams & Victor, Principles and Practice of Clinical Neurology – Callisto Medical Publishing House, Bucharest, 2017, p. 660
10. Martin AS., Allan HR., Samuels manual of neurologic therapeutics – Wolters Kluwer Publishing House, Philadelphia, 2017, p. 174
11. Osama OZ., J. Douglas M., Alan JL., The little black book of neurology – Elsevier Publishing House, Philadelphia, 2020, p. 578-579
12. Mungiu OC., Săndesc D., Marin AF., Pain Therapy - Etna Publishing House, Bucharest, 2018, p. 9.