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REVIEW & HYPOTHESIS

Supra-cellular Malignant Transformation in Breast Carcinogenesis

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Abstract. Full evolution of new tissue and cellular traits in the acquisition of malignant potentiality would be predetermined in terms of consequence and sequentiality of various converging pathways that otherwise tend to developmentally differentiate and diverge. Indeed, beyond simple identification of the various defined models in determining such phenomena of immortalization as proliferative index and infiltrative front, one might further realize pathways in the delineation of metastatic potentiality as pathobiology and pathogenesis rather than as instituted etiologic factors. In the various redefined descriptions of histomorphologic profiles and determinations of modeled replication as templates of consequence, one might further identify regions of cellularity and supracellularity beyond the developmental history of lesion predetermination. There would evolve templates of predetermination as direct consequences of a series of pathophysiologic sequences that further identify the bridging basis for cellular and tissue pathophysiology in terms of metastatic potentiality of a given individual malignant neoplasm of the breast.

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1. Complexity

Complexity of architecture would implicate a derived attribute that constitutes variable expression of incipient transformation. Biomechanics and biophysics of malignant lesions offer enormous potential in the understanding of the neoplastic process [1]. One might view such constitutive property as a prolongation of dynamic transformation borne out by the subunit components of the terminal ductule-lobule. Indeed, in view of increased derivation of injury to epithelial cells, there might evolve a complex rearrangement of component systems that further progress as incipient transformation.

Evolving derivation of cell types might constitute a characterization that typifies injury to cells as stem cell attributes of origin. One might view the development of stem cell biology that further progresses as neoplastic characterization of the terminal ductule-lobular unit in particular. There would further involve a natural reorganization of factors that evolve in terms both of biologic and architectural reconstruction of subunit morphology. Epidermal growth factor receptor signaling contributes to malignant transformation [2].

In terms beyond incidence of injurious evolution of factors in breast cancer pathogenesis, there might indeed develop subsequent dynamics of progression that typify transformation beyond cellular attributes of genomic characterization. Ephrins control cell motility and matrix adhesion and are pivotal in cancer progression [3].

2. Realized Carcinogenesis

One might indeed further develop a realized carcinogenic step that is crucially implicated in further evolution of the pathology of the transformed epithelial cell. Most malignant tumors disrupt the p53 signaling pathway in order to grow and survive [4]. Indeed, in view of arrangements in further development of the injury to cells, there might subsequently progress a developmental restructuring of the injury that further involves injury as pathophysiologic evolution of tissue attributes.

Incipient derivation of preneoplastic change might further involve the attributes of injury to cells that collectively characterize the terminal ductular-lobular unit. A stem cell/cancer link may implicate target gene methylation [5].

One might indeed perhaps implicate further reconstruction in terms of derived injury such as that reflected in terms beyond definition of such injury. In addition, one might further characterize such injury in terms that specifically and globally implicate a reconstruction of the transformation process.

One would indeed further perform a recollected and reflected composition in terms of an injury that is defined beyond systems of characterized type of such cellular injury. Other patterns of gene expression may depend on the differentiated state of the host cell in terms of viral infections such as Epstein-Barr virus [6]. One might view the carcinogenic systems of transformation in terms of an injury that is further typified beyond supposed derivation of dynamic reconstruction of pathogenic events.

3. Phenomenon of Reconstruction

Localization of injury is itself a phenomenon of reconstruction that would derive implications of injury beyond simple characterization of the initial event. Virally induced carcinogenesis might implicate chromosomal instability subsequent to cell fusion [7]. One might indeed develop pathways of reconstruction that further involve developmental systems of pathophysiology as transformation events in the first instance.

Beyond the derived characterization of the transformation force in carcinogenesis, one might indeed view the evolving effects of injury in terms of a reconstruction of receptive pathways leading to progression and redefinition of component events. The accumulation of specific genetic alterations affects malignant transformation due to dysregulated mitosis and apoptosis [8].

Subcomponent injury to cells as genomic action and reaction might perhaps implicate a system of specificity that would allow performance of the injury as characterized pathogenesis.

In view of the further re-characterization of the transformation process, one might also view

the defined attributes of the pathways leading to the central process of developmental reconstruction as essential injury to epithelial cells and as systems of convergence. The Epstein-Barr virus carrier state can lead to the evasion of apoptosis and enhance response to growth promoting signals [9].

In terms that redefine injury to character and type of transforming pathways, one might also implicate a crucial converging series of pathways that transform pathways beyond origin or etiologic agent identification.

Restoration of a functional Transforming Growth Factor-beta receptor may be useful in limiting tumor spread and dissemination [10]. Origin and derivation of attributes might define the transforming quality of a pathogenic event in the terminal ductule-lobular subunit. D-Type cyclins are components of the cell-cycle engine that link cell signaling pathways and passage throughout G1 phase [11].

Etiology and derived definition of pathways of reconstruction might allow for the delineation of further events in terms of quality and characterization of the developmental process in carcinogenesis. One might indeed further attribute the histopathologic and subsequent infiltrative dynamics of a breast carcinomatous lesion in terms beyond injury to the epithelial cell in specified fashion. Specificities of the complex reconstruction of the injury might indeed implicate a developmental process of stem cell characterization that goes beyond given attributes of such injury or transformation.

Derived imbalance in reconstruction of events in pathogenesis might indeed indicate a dynamic recharacterization beyond simple definition of etiology and pathogenesis of initial steps in transformation. Normal tissue structure controls the response to extracellular signals so as to preserve tissue specificity and growth status [12].

4. Subcomponent Systems

One might further clarify the various subcomponent systems beyond defined pathways of convergence and reconstruction of the injurious event. Oxidative stress imposed by reactive oxygen species plays a crucial role in the pathophysiology of neoplasia [13].

It is in terms beyond such injury that one might recognize a pathophysiology that implicates further development of the dynamics of reconstruction of transformation. Autonomous proliferation of cancer cells includes also mutations and genetic instability [14].

Malignancy would reliably implicate a duality in progression that further allows injury to develop in the first instance.

One might further believe that the full impact of malignant transformation is concerned with conversion of injury to dynamic reconstruction of pathophysiologic events in further progression. NF-kappaB provides a critical mechanistic link between inflammation and cancer [16]. The term carcinogenesis evolves as a predetermined reconstruction of pathways of convergence beyond injury to component or individual epithelial cells.

Convergence and divergence of events in reconstructed dynamics of evolution of the malignant process might allow for the redefinition of pathogenesis in terms beyond etiologic determination of forces of change.

5. Tissue Characterization

Tissue characterization and further evolution of pathways might better reconstruct a dynamism of transformation that allows or precludes injury to individual subcomponents of reconstructed injury. A series of cellular and genetic principles govern carcinogenesis with a complex accumulation of genetic and epigenetic events [18].

Epithelial cells might indeed involve subsequent injury beyond simple carcinogenetic derivation of cell type and cell dynamics in proliferation. Proliferative phenomenon might indeed allow for the reconstruction of pathways beyond injury to component cells. Differentiation begins with the installation of a genetic program named determination specific for a cell lineage [15].

Systems of organization might further evolve in terms of the injury that converges on multiple suborganelles and as pathway characterization. Interactions of cancer cells with mi-

croenvironmental components are crucial to carcinogenesis [17].

It might simply be in terms of injury to epithelial cells that there might further develop a simplified version of the individual cell processes in terms particularly conducive to increased proliferative activity.

In the terms of reference to excessive mitotic activity there might indeed further evolve an injury that is as pathogenic derivation of converging etiologic agents of original transformation.

6. Specificities

Recognition of transforming dynamics of injury might allow for the reconstruction of pathways of convergence beyond simplified specificities of the characterized attributes of the individual cell type of origin of the lesion. Different chemokine receptors is involved in neoplastic cell growth, metastasis and angiogenesis [19].

Necrosis and neoangiogenesis might be attributes of change that transform the individual cell to pathophysiologic systems of reconstructed biology of the tumor cell type and tissue.

True prognostic indices of determination might specifically incriminate a metastatic potential beyond simple dynamics of the transformed malignant cell. Abnormalities in the interactions of cells with the extracellular matrix are a hallmark of malignant transformation [20].

Angiogenic sprouting of endothelial cells would represent a further evolved form of the malignant transformation event in terms beyond injury to the epithelial cells in breast carcinogenesis. Necrosis further complicates such transformation in terms of a duality of injury to systems that progress both as individual cells and as converging pathways of tissue pathophysiology.

Neogenesis might specifically reconstitute injury that goes beyond the initial steps of reconstructed transformation events. A common feature of human breast oncogenesis is cell cycle deregulation [21].

7. Action and Reaction

Action and reaction would clarify the injury to cells as systems of progression beyond strict defining terms of a specified evolutionary course. Cell adhesion and migration are essential for embryonic development, tissue regeneration and also for tumor development. Integrins play key roles in regulating tumor growth and metastasis as well as tumor angiogenesis [22].

Convergence and divergence of injury might specifically implicate a characterized injury beyond dynamics of evolving transformation of cell biology. Altered gene expression is critical to development of the malignant phenotype [23].

In terms beyond simple reconstruction of the dynamics of evolution, predetermination of pathobiology might further allow for prognostication of variables in tissue injury.

Neogenesis and further transforming potentiality might further indicate an etiologic derivation beyond simplification of the pathophysiology of transformation.

Derivation of further reconstructed phenomena characterizing the malignant lesion might specifically include an injury to cells that evolve as subcomponents of the integral injurious event. Stromal changes are required for the establishment of cancer [24].

Defined pathways of induced change would better constitute an event that characterizes injury as a divergence/convergence duality of forces. One might indeed recognize the injury in terms that go beyond systems of reconstituted pathways of transforming potentiality.

8. Transformation Event

Mitotic activity and performance of the transformation event leading to the establishment of the malignant lesion might specifically allow for the reconstruction of a pathobiology as integral dynamics. Cancer is not a single cell disease [27].

One might simply allow for the evolving change in the performance of diverging or converging injury beyond simple dynamics of such change. There might specifically allow progression as an injury beyond simplified or diagrammatic reconstruction of component systems.

The definitive pathways of events as derived injury might allow for the possible etiologic factors that predetermine pathophysiology of prog-

nostic variables.

Sequential and replicative events constituting repetitive models of onset and progression dynamics might evolve in terms of the development of the attributes of a density angiogenesis that provokes further differentiation of tissues and cells. It is apparent that the full implications of a modeled representation of breast carcinogenesis would subsequently progress in terms of the renewed dimensions acquired with the immediate and subsequent development of novel biologic attributes of immortalized cells constituting tissue pathophysiology.

Pathogenesis of malignancy appears a predominant representation of the modeled consequences of a tissue pathophysiology somewhat integrated as individual cell proliferation and spread [25].

One might furthermore consider the evolutionary history of the represented malignant events in terms of consequences that highlight further attribute gain as pathophysiology of malignant lesions. A phenotypic switch resulting in growth advantage of tumor cells characterizes Transforming Growth Factor beta action [26]. The primary breast carcinoma might be prognostically predetermined as biologic potential only in terms of the sequential evolution of further attribute gain in progression, particularly as proliferative and infiltrative lesions that subsequently metastasize. A vicious circle of hypoxia and malignant progression may evolve [28].

Indeed, beyond the definition of the onset progression of lesions that somehow recapitulate in variable fashion the histopathologic models of developed tissues and organs, there would further be implicated a systematic replacement of substituted properties of a represented malignant lesion in evolution. Early chromosomal instability as induced also by telomere shortening is a major driving force in malignant transformation [29].

9. Supra-Cellularity

Supra-cellular models of template substitution might further constitute a representation that is basic to the understanding of evolutionary history in terms of malignant attributes of a breast carcinomatous lesion.

In view of consequences that go beyond representation of individually sequenced events in promotion of cell proliferation and spread, one might indeed recognize the identity of events as pathobiologic representations of subsequent promoted pathways of consequence in terms of biomorphologic models of malignant transformation. Somatic evolution in carcinogenesis results from active selection that confers a significant growth advantage [30].

It might be particularly significant that the full implications of certain malignant lesion traits would be inherent to the developmental identity of a lesion that invariably progresses in terms of etiologic predetermination of the lesion at its inception as pathophysiologic event.

Tumor necrosis would alternate with episodic sprouting of neoangiogenesis in terms predestined to replicate further basic modeling events in cell proliferation and spread. It might be highly significant that attributed consequences of onset and progression of predestined lesions is beyond representation of any modeled consequences of a malignant individual lesion. Dysregulated signal transduction of growth factor receptors contributes to malignant transformation [31].

Evolution as a term of reference in the consequential development of a malignant lesion might further constitute the modeled representation of a lesion that acts as template to the further sequential outcome of converging pathways as transforming potentiality of an individual malignant lesion arising primarily in the breast.

10. Concluding Remarks

Supracellular representation of the imaged and modeled representations of a primary breast carcinoma might be viewed as consequences of the actual act of predetermination of the immortalized nature of the neoplastic lesion in the first instance. One might further view the subsequent and sequential representations of proliferative and infiltrative events in terms of the establishment of metastatic potential that goes beyond such represented pathways of convergence. Converging and diverging new developments in

the delineation of a primary neoplastic lesion might be better reconstructed in terms of the renewed definition of neoplasia as sequential consequence to pathophysiology rather than as simple establishment of etiologic factors.

It is the further consequential evolution of the lesion that one would identify a developmental identity to a malignant lesion that etiologically evolves as pathophysiology of tissues rather than of genomic cellular templates of consequence.

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